



**THE WORLDWIDE SOURCE FOR  
SPECIALTY ACCESS PRODUCTS**

## Bilco's History

The Bilco Company has served the building industry since 1926. During these years it has built a reputation among architects, engineers, specifiers, and the construction trades for dependability and for products that are unequalled in design and workmanship. Under the same family ownership and management since its beginning, the Company has been a pioneer in the development of the unique line of specialty access products found within this catalog.

## Bilco Today

The Bilco Company continues to be the industry leader in the design and manufacture of specialty access products. In order to better serve its customers, Bilco has added manufacturing facilities and strategic distribution throughout the world, along with establishing an extensive international network of factory-trained representatives. These representatives, combined with Bilco's highly skilled and dedicated personnel, ensure a level of customer service that is unequalled in the industry. As the leader in design innovation, many of Bilco's products incorporate features for which numerous U.S. and international patents have been issued. Years of engineering experience, coupled with manufacturing facilities utilizing the most modern equipment available, allows Bilco to design and fabricate access products for virtually every application.

## Our Commitment



Bilco products are designed and fabricated to consistently high quality standards to ensure complete customer satisfaction. As part of its commitment, Bilco has implemented a quality system, which has achieved ISO 9001 certification. The Bilco Company is committed to producing access products that are unequalled in quality, design and workmanship.



Headquarters – West Haven, Connecticut



Manufacturing – Trumann, Arkansas

## Our Guarantee

Bilco warrants its products against defects in material and workmanship for a period of five years from the date of purchase, unless otherwise indicated in this catalog. Should a part fail to function in normal use within this period, Bilco shall furnish a new part at no charge. Electric motors, special finishes and other special equipment (if applicable) shall be warranted separately by the manufacturers of those products.





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Product details and specifications are readily available by logging onto [www.bilco.com](http://www.bilco.com) and visiting our download center.

### U.S. and International Bilco patents issued and pending...

5,373,665	5,927,012	6,260,305	6,931,793
5,554,433	5,960,596	6,347,818	Other U.S. and
5,565,274	6,041,553	6,672,020	International patents
			issued and pending.



The Bilco Company

P.O. Box 1203, New Haven, CT 06505 • Phone: (800) 366-6530 • Fax (203) 933-8478 • e-mail: [commercial@bilco.com](mailto:commercial@bilco.com)

Web: [www.bilco.com](http://www.bilco.com)

**Visit [www.bilco.com](http://www.bilco.com) to find a Bilco Sales Representative near you.**

The Bilco Company reserves the right to make design changes or to withdraw designs and products shown throughout this catalog without notice as we deem advisable.

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Bilco roof hatches provide safe and convenient access to roof areas by means of an interior ladder, ship stair or service stair. A variety of special sizes are also available to provide an accessible way to install or remove large pieces of equipment from a building.

## Typical Applications

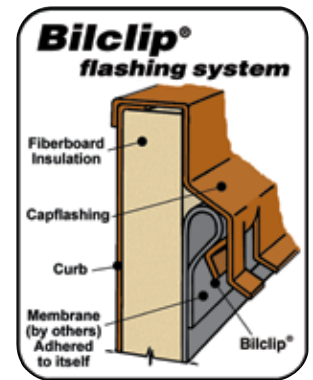
- Banks
- Prisons
- Factories
- Fast Food Restaurants
- Gymnasiums
- Hospitals
- Hotels
- High-Rise Housing
- Office Buildings
- Manufacturing Plants
- Schools
- Shopping Centers
- Storage Facilities
- Distribution Depots
- Warehouses

## Features & Benefits

- Weathertight construction
- Fully insulated and gasketed for energy efficiency
- Lift assistance for smooth, easy, one-hand operation
- Corrosion resistant hardware
- Bilclip® Flashing System for ease of installation
- Custom sizes and options are readily available
- Sizes available with Miami-Dade County and Florida Product Approval



*Look for this logo in roof hatch section for approved sizes*



*Standard on all Bilco roofing products.*







1. Heavy duty slam latch securely locks cover in the closed position. Interior/exterior padlock hasps provide additional security. (Note: Double leaf roof hatches and roof hatches over 7'0" (2.13m) in length have a 2-point latch.)
2. Interior reinforcing members are welded in place for cover strength and rigidity.
3. Rugged hold-open arm automatically locks the cover in the open position. Grip handle allows for easy, one-hand release and closing.
4. Fully insulated cover and curb.
5. Extruded EPDM rubber gasket permanently adhered to the underside of cover. Finger design ensures complete weathertightness.
6. Fully enclosed compression springs counterbalance the cover for smooth, easy and controlled operation regardless of size or weight.
7. All Bilco roof hatches feature prepunched capflashing to receive the Bil-Guard<sup>®</sup> Hatch Rail System (see page 14 for more information).



## Enhanced Performance Roof Hatches



Type S-50T Roof Hatch Shown

### Ideal for Green Building Designs and Applications That Require Higher Energy Efficiency

The new thermally enhanced design features special gasketing and increased insulation for superior thermal performance to improve the energy efficiency of your building.

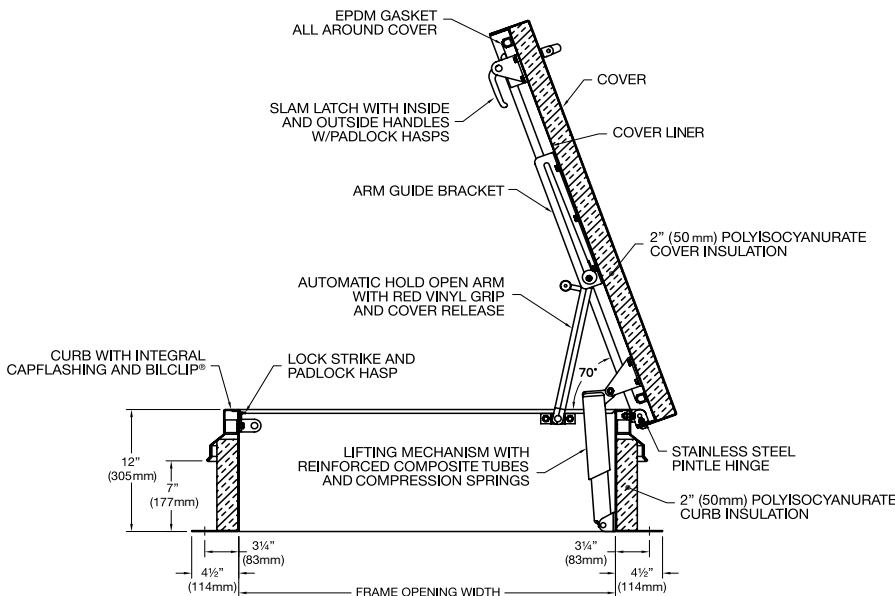


Available in Enhanced Performance Design

Design available on a number of standard roofing products. Look for this leaf logo throughout the catalog.

#### Features & Benefits

- Energy efficiency exceeds standard hatches by more than 48% (R value = 12)
- Meets LEED® standards for recycled content
- High solar reflective index (SRI)
- 2" (50mm) of ozone-friendly polyisocyanurate insulation in cover and curb
- EPDM gasketing with enhanced weather-resistance
- 11 gauge (2.3mm) mill finish aluminum construction



Type S-50T and E-50T detail shown. All other models open to 90°.



Type NB-50T



Type L-50T



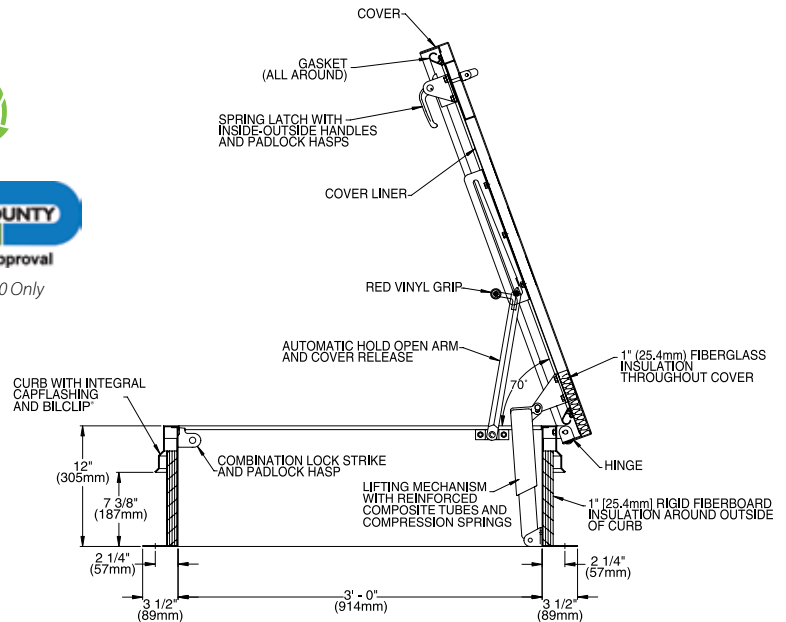
# Type S, Type E Ladder Access



Type S Shown



**MIAMI-DADE COUNTY**  
APPROVED  
Florida Product Approval  
Type S-20 and S-50 Only



## Description:

The easy, one-hand operation, to the fully open or closed position, provides the user the security of having one hand firmly on the ladder at all times. Available in galvanized steel, aluminum or stainless steel construction.

## Specifications:

### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

### Cover

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

### Gasket

Extruded EPDM rubber gasket permanently adhered to cover

### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

### Latch

Slam latch with interior and exterior turn handles and padlock hasps

### Lift Assistance

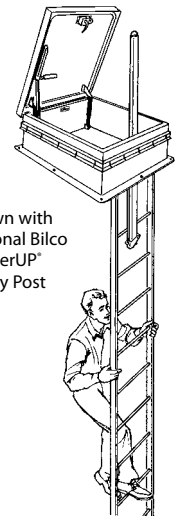
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel



Shown with optional Bilco LadderUP Safety Post



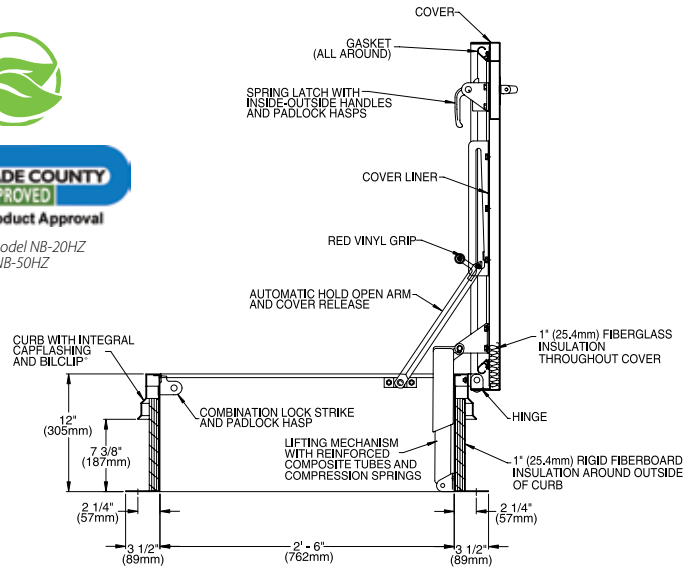
## Standard Sizes and Weights

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			STAINLESS STEEL		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	S-20	183	83	S-40	150	68	S-50	110	50	S-90*	183	83
36 x 36	914 x 914	E-20	207	94	E-40	184	84	E-50	117	53	E-90*	207	94

\* This model is a special order.



# Type NB Ship Stair Access



**Description:**

Ideal for installations where frequent use may be expected. Permits easier movement of maintenance personnel, tools, and equipment. Available in galvanized steel, aluminum or stainless steel construction.

**Specifications:**

**Material** (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

**Cover**

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11 mm) provided for securing frame to the roof deck

**Gasket**

Extruded EPDM rubber gasket permanently adhered to cover

**Hinges**

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

**Latch**

Slam latch with interior and exterior turn handles and padlock hasps (specify enclosed two point spring latch with interior and exterior turn handles and padlock hasps for Type NB-20HZ and NB-50HZ Miami-Dade Approved models)

**Lift Assistance**

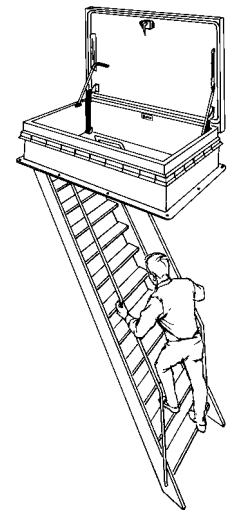
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

**Hardware**

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel

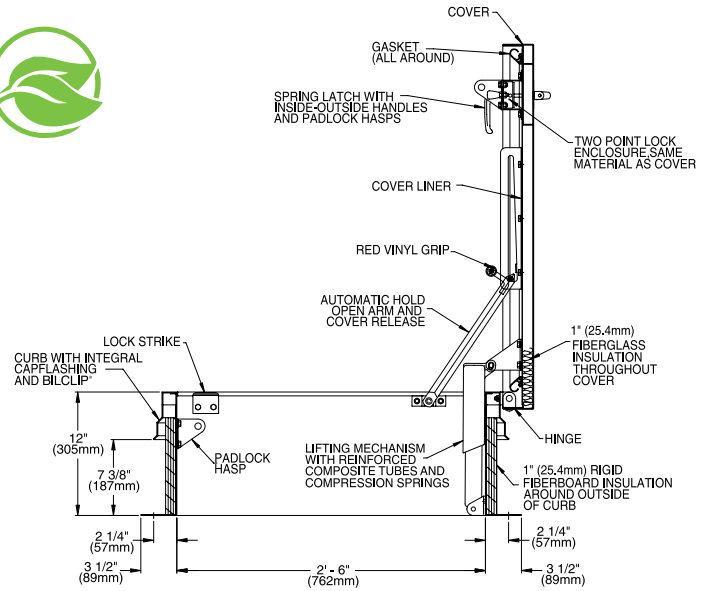


**Standard Sizes and Weights**

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			STAINLESS STEEL		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
30 x 54	762 x 1372	NB-20	239	109	NB-40	190	86	NB-50	139	63	NB-90*	239	109
36 x 54	762 x 1372	NB-20HZ	239	109	Consult Factory			NB-50HZ	139	63	Consult Factory		

\* This model is a special order.

# Type L Service Stair Access



### Description:

Ideal for installations where frequent use may be expected. Permits easier movement of maintenance personnel, tools and equipment from a full size stairway. Available in galvanized steel, aluminum or stainless steel construction.

### Specifications:

#### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

#### Cover

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Extruded EPDM rubber gasket permanently adhered to cover

#### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Enclosed two-point spring latch with interior and exterior turn handles and padlock hasps

#### Lift Assistance

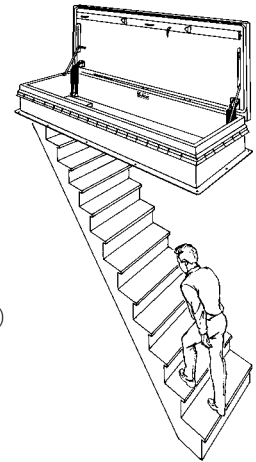
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

#### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

#### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel

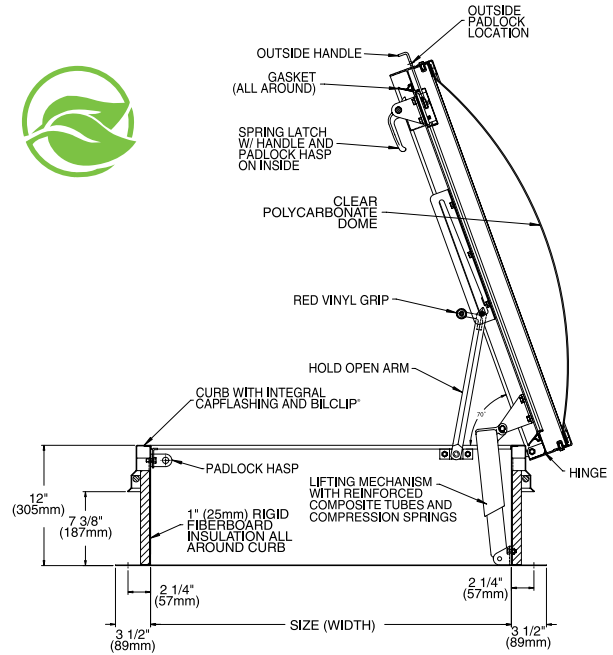


### Standard Sizes and Weights

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			STAINLESS STEEL		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
30 x 96	762 x 2438	L-20	434	197	L-40	295	134	L-50	253	115	L-90*	434	197

\* This model is a special order.

## Type GS Ladder Access



### Description:

All the security and convenience of the Type S roof hatch with the added benefits of a skylight. GS Roof Hatches feature aluminum construction and virtually indestructible polycarbonate domes.

### Specifications:

#### Material

Cover and frame are 11 gauge (2.3mm) aluminum

#### Cover

Aluminum extrusion with built-in condensation drainage channel and clear polycarbonate dome or double domes

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Extruded EPDM rubber gasket permanently adhered to the cover

#### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Slam latch with interior and exterior padlock hasps

#### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

#### Finish

Mill finish

#### Hardware

Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



Shown with optional Bilco LadderUP Safety Post



### Standard Sizes and Weights

SIZE		ALUMINUM W/ SKYLIGHT					
		SINGLE DOME		DOUBLE DOME			
(width x length)		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	GS-50	115	52	MGS-50	135	61

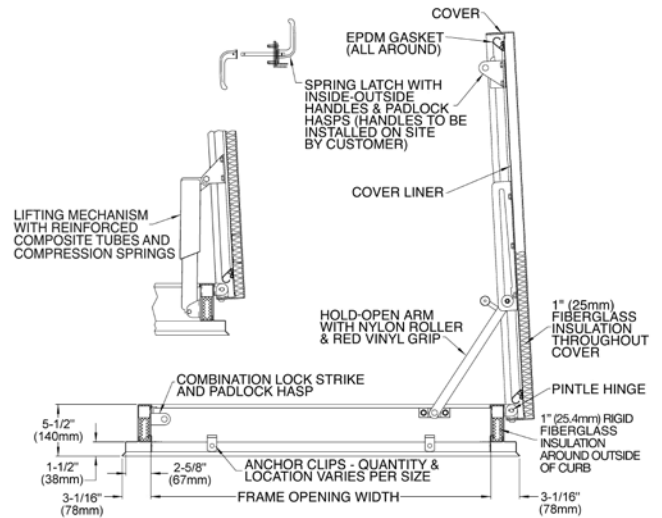




# The VersaMount® Access Hatch



Optional anodized finish shown



## Description:

The VersaMount® replacement hatch allows you to replace a damaged roof hatch without re-roofing. Simply remove the cover from the damaged hatch and place the VersaMount® hatch on top of the existing curb. The low-profile curb features a built-in flange and apron and innovative anchor clip system to ensure a fast, secure and weathertight installation. Available in a number of standard sizes.

## Specifications:

### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

### Cover

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

### Curb

4" (102mm) in height, brakeformed hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 2-5/8" (67mm) mounting flange and 1-1/2" (38mm) apron, fully welded at corners. Stainless steel anchor clips are included.

### Gasket

Extruded EPDM rubber gasket permanently adhered to the cover

### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

### Latch

Slam latch with interior and exterior turn handles and padlock hasps

### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel



Job-Built Wood Curbs



Job-Built Concrete Curbs



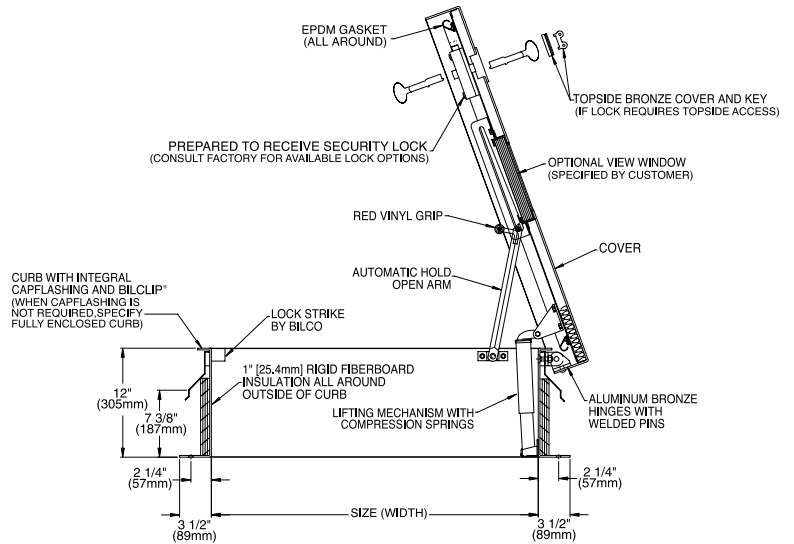
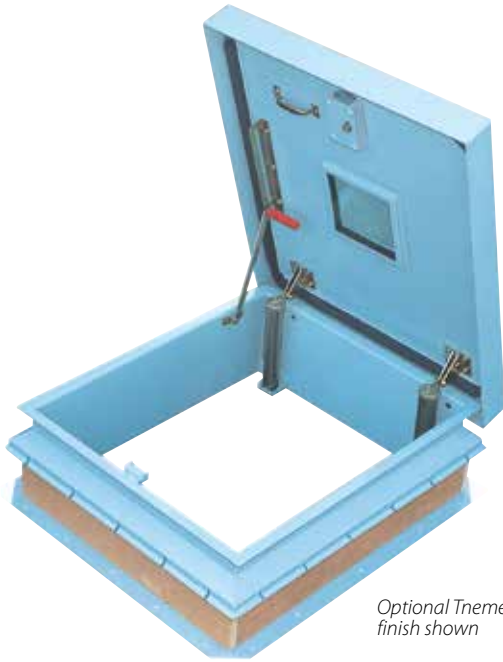
Existing Roof Hatch or Job-Built/Prefab Metal Curbs

## Standard Sizes and Weights

SIZE		STEEL		ALUMINUM		STAINLESS STEEL				
(width x length)		Model #	Weight		Model #	Weight				
inches	mm		lbs.	kg.		lbs.	kg.			
36 x 30	914 x 762	S-20VM	152	70	S-50VM	86	39	S-90VM*	152	70
30 x 54	762 x 1372	NB-20VM	180	82	NB-50VM	100	46	NB-90VM*	180	82
30 x 96	762 x 2438	L-20VM	320	145	L-50VM	178	81	L-90VM*	320	145
1m x 1m		EW-20VM	170	77	EW-50VM	90	41	EW-90VM*	170	77

\*These models are a special order.

# Security Series Access Hatch



**Description:**

Constructed of heavier gauge materials for high security applications such as prisons, banks, embassies, and pharmaceutical buildings. Roof hatches can be fabricated for field installation of many leading brands of security locks. Other options include security glazing and gunports. (See page 23 for more information.)

**Specifications:**

**Material** *(select one)*

- Steel: Cover and frame are 3/16" (4.76mm) steel
- Aluminum: Cover and frame are 3/16" (4.76mm) aluminum

**Cover**

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

**Gasket**

Extruded EPDM rubber gasket permanently adhered to cover

**Hinges**

Heavy-duty aluminum bronze hinges

**Latch**

Factory prepared to receive a deadbolt detention lock (specify manufacturer and model #), supplied and installed by others in the field. Consult factory if an alternate lock is required.

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish

**Hardware**

Steel compression springs and type 316 stainless steel spring tubes. All other hardware is zinc plated/chromate sealed.

**Standard Sizes and Weights**

SIZE		STEEL				ALUMINUM			
(width x length)		Model #	Weight		Open Angle	Model #	Weight		Open Angle
inches	mm		lbs.	kg.			lbs.	kg.	
36 x 30	914 x 762	S-20C	386	175	70°	S-50C	150	68	70°
36 x 36	914 x 914	E-20C	400	181	70°	E-50C	176	80	70°
30 x 54	762 x 1372	NB-20C	475	215	90°	NB-50C	210	95	90°



# Type F, Type SS, Type D Equipment Access

## Description:

The larger opening provides an easily accessible means for equipment to be installed or removed from a building. Equipment access roof hatches are available in steel, aluminum and stainless steel construction and in one standard single leaf size [Type F, 48" x 48" (1219mm x 1219mm)]. Special single leaf sizes (Type SS) are available and are recommended for widths up to 5'0" (1524mm). For larger openings, specify double leaf construction (Type D). For best operation, specify aluminum construction for single leaf hatches over 3'0" (914mm) wide and double leaf hatches over 7'0" (2134mm) in width.

## Specifications:

### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel



### Cover

Braakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

### Gasket

Extruded EPDM rubber gasket permanently adhered to cover

### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

### Latch

- Single leaf: Slam latch with interior and exterior turn handles and padlock hasps [units 7'0" (2133.6mm) in length and over shall be supplied with a two point lock]
- Double leaf: Enclosed two-point spring latch with interior and exterior turn handles and padlock hasps

### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges.
- Stainless Steel: All other hardware is zinc plated/chromate sealed.

## Standard Sizes and Weights

SIZE		STEEL CURB& ALUMINUM COVER		ALUMINUM			
(width x length)		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.
48 x 48	1219 x 1219	F-40	275	125	F-50	218	99

## Special Sizes

Type SS - Single Leaf  
Type D - Double Leaf  
Contact Bilco for more information



Type D Double Leaf Roof Hatch Shown



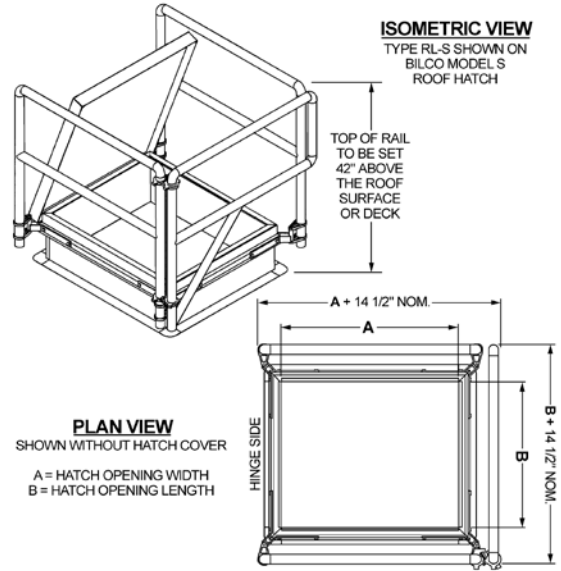
Type F Single Leaf Roof Hatch Shown



# Bil-Guard® Hatch Rail System



Patented



## Bil-Guard® Hatch Rail System

### Standard Features and Benefits

- High visibility safety yellow color
- Non-penetrating attachment
- Standard self-closing gate with automatic latching mechanism
- Available in a variety of sizes
- Corrosion resistant construction carrying a 25-year warranty
- Fits all roof hatch brands with capflashing
- Can be easily installed on new or existing hatches and smoke vents
- Designed to withstand a 200 lb. (90 kg) force

### Specifications:

Posts and rails are pultruded from a fire retardant, fiberglass-reinforced polymer (FRP). FRP material has a molded-in, high visibility, safety yellow color and is treated with a UV inhibitor. Mounting brackets are fabricated from 1/4" (6.35mm) thick hot dip galvanized steel. Gate hinges and post guides are constructed of 6063-T5 aluminum and torsion rod is Type 302 stainless steel. All fasteners are Type 316 stainless steel. Hatch rail system satisfies the requirements of OSHA 29 CFR 1910.23 and meets OSHA strength requirements. Manufacturer shall provide a 25-year warranty against defects in material and workmanship.

Bil-Guard® is a fixed railing system that provides a permanent means of fall protection for hatch openings. Tested and proven to meet and exceed OSHA fall protection standards (29 CFR 1910.23), Bil-Guard® features an innovative attachment system that does not penetrate the roofing membrane, installs quickly and easily using basic tools, and does not require special training or certification for proper installation.

### Standard Sizes and Weights

Special sizes available. Contact Bilco for more information.

ROOF HATCH		BIL-GUARD HATCH RAIL SYSTEM			
Size (width x length)		Bilco Model	Model #	Shipping Weight	
inches	mm			lbs.	kg.
36 x 30	914 x 762	S	RL-S	52	24
36 x 36	914 x 914	E	RL-E	52	24
48 x 48	1219 x 1219	F	RL-F	61	28
30 x 54	762 x 1372	NB	RL-NB	60	27
30 x 96	762 x 2438	L	RL-L	76	35



**Self-Closing Gate Hinge**  
Ensures continuous protection



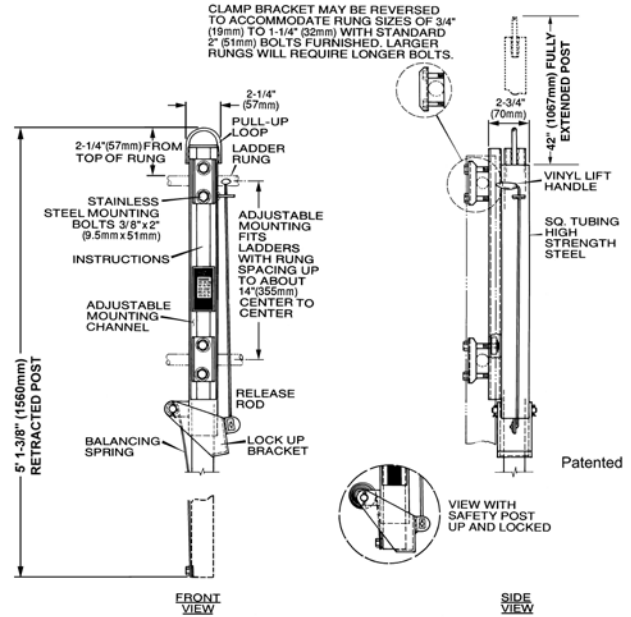
**Pivoting Mounting Sleeve**  
For installation flexibility



**Gate Latch**  
Locks gate in closed position



# LadderUP® Safety Post



LadderUP® Safety Posts provide easier, safer ladder access through roof hatches, floor access doors and manholes. This telescoping post permanently mounts to the top two rungs of any fixed ladder, providing a positive hand-hold and enabling the user to enter or exit an opening in an upright and balanced position.

## Standard Features and Benefits

- Adjustable mounting hardware accommodates virtually any ladder rung size or spacing
- Telescoping design is spring balanced for ease of operation
- Automatically locks in the fully raised position to provide the user with a firm and steady hand-hold
- Handy release lever allows the post to be easily lowered to its retracted position
- Available in four levels of corrosion resistance to provide many years of trouble free, dependable service

## Specifications:

Install on fixed ladder(s) below hatch cover(s), LadderUP® safety post Model \_\_\_ as manufactured by The Bilco Company. Device shall be (refer to chart for material/finish of model specified). It shall be designed with a telescoping tubular section that locks automatically when fully extended. Upward and downward movement shall be controlled by a stainless steel spring balancing mechanism. Unit shall be completely assembled with fasteners for securing to the ladder rungs in accordance with the manufacturer's instructions. If installation is to be in corrosive atmosphere, specify Model LU-2, LU-3 or LU-4 as conditions warrant.

## Standard Sizes and Weights

Model	Material/Finish	Weight	
		lbs.	kg.
LU-1*	Steel, yellow powder coat	24	11
LU-2	Steel, hot dip galvanized	24	11
LU-3	Type 304 Stainless Steel, sand blast finish	24	11
LU-4	Aluminum, mill finish	14	7

\*LU-1 can be supplied with a black powder coat finish on request.



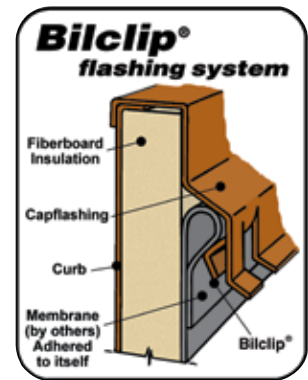
Automatic Smoke Vents protect property and aid firefighters in bringing a fire under control by removing smoke, heat, and gases from a burning building. Smoke vents are ideally suited for large expanses of unobstructed space such as factories, warehouses, auditoriums, and retail facilities.

## Typical Applications

- Aircraft Hangars
- Auditoriums
- Concert Halls
- Convention Centers
- Elevator Shafts
- Factories
- Gymnasiums
- Manufacturing Plants
- Pools
- Processing Plants
- Retail Structures
- Schools
- Storage Facilities
- Transit Facilities
- Warehouses
- Other open floor space facilities

## Features & Benefits

- Increased evacuation time and decreased risk of smoke inhalation and damage
- Enhanced visibility to allow firefighters to quickly locate the fire
- Protection against secondary ignitions and lateral fire spread
- Exhausting of noxious and potentially explosive fumes
- Structure protection from damaging heat
- Reduce damage to building contents
- Available in a number of UL approved sizes
- Bilclip® Flashing System for ease of installation

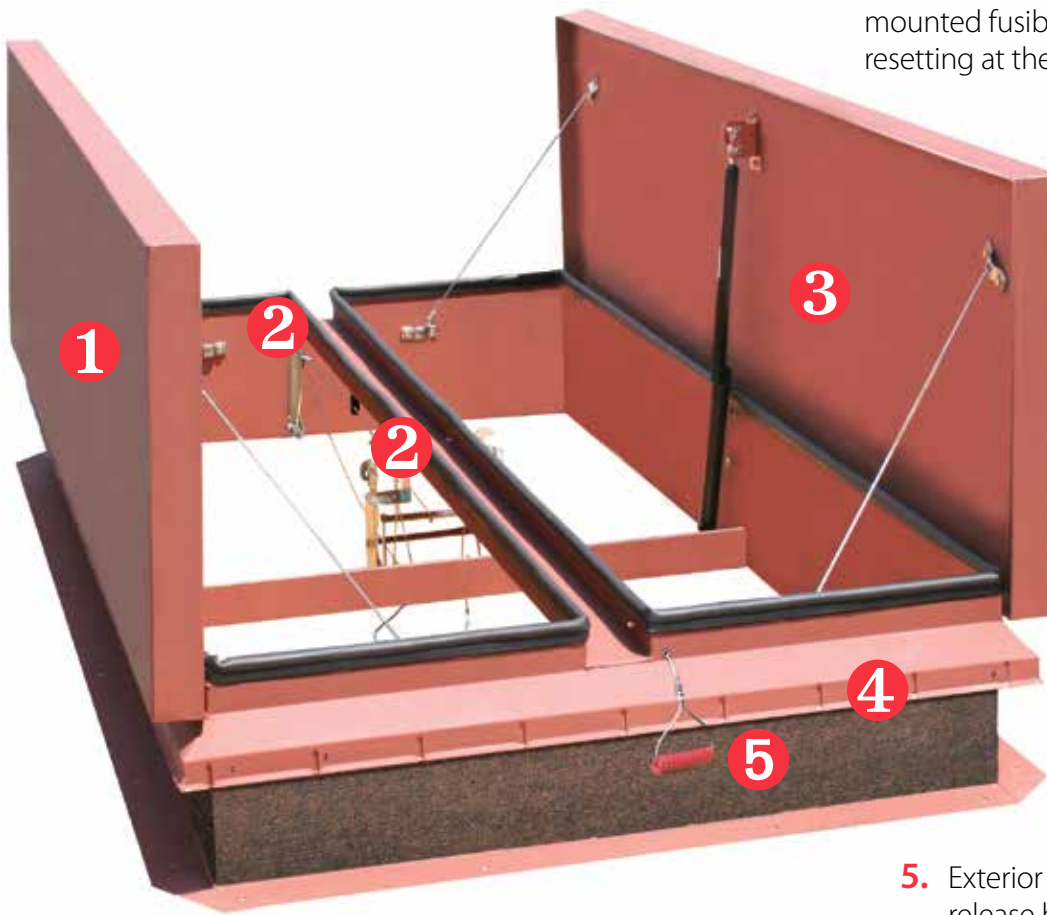


Standard on all Bilco roofing products.





1. Fully insulated and gasketed covers for weathertight performance.
2. Thermolatch® II latching mechanism with curb mounted fusible link housing for quick and easy resetting at the roof level.



3. Gas springs open covers against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load and integral dampers ensure a controlled rate of operation. Covers automatically lock in the open position upon vent activation. (Note: Single leaf models are supplied with compression spring operators and shock absorbers.)

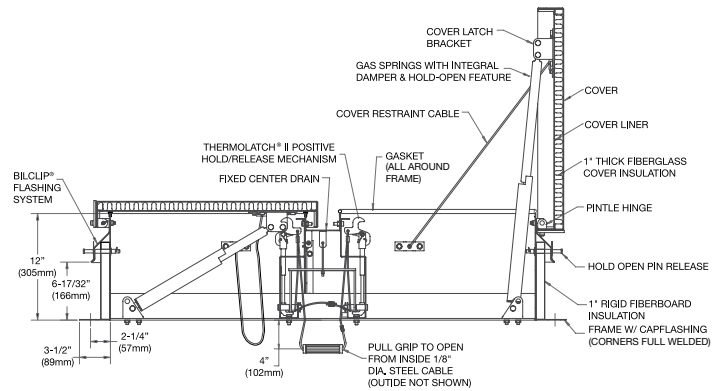
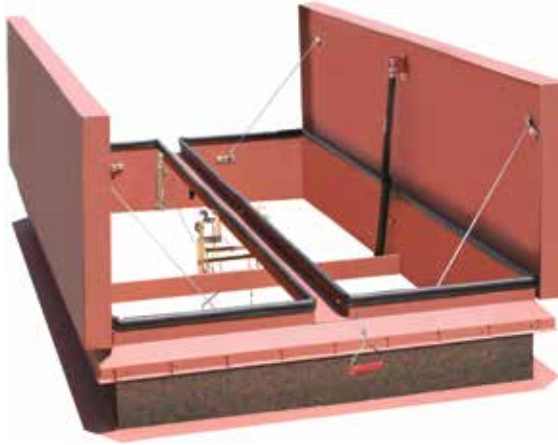
4. All Bilco roof products feature pre-punched capflashing to receive the Bil-Guard® Hatch Rail System (see page 14 for more information).

5. Exterior and interior (not shown) pull release handles for manual operation.





# Type DSH Double Leaf



**Description:**

DSH series smoke vents are available in a number of standard UL-listed sizes. Features include fully insulated covers and galvanized steel or aluminum construction.



**Specifications:**

**Material (select one)**

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum

**Operation**

When released, high-performance gas springs open covers against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load and lock covers in the full open position. Gas springs have integral dampers to assure a controlled rate of cover opening and have a cyclic durability of 50,000 cycles.

**Covers**

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

**Gasket**

Dual durometer, co-extruded, EPDM rubber gasket mechanically fastened to the top of the curb

**Hardware**

Gas springs have a chrome plated inner rod and powder coated outer tube. All other hardware is zinc plated/chromate sealed or galvanized. Note: models with aluminum covers have type 316 stainless steel hinges.

**Hinges**

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

**Latch**

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link with a separate latching point for each cover. Designed to hold the covers closed against a 90 psf (438 kg/m<sup>2</sup>) wind uplift force. Provided with interior and exterior pull release cables to manually open vent covers.

**Performance Ratings**

UL-listed. Complies with UL 793 and UL 790 Class A (burning brand test).

**Finish**

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish



Shown with optional railing system

**Standard Sizes and Weights** Contact Bilco for special size requirements

SIZE		STEEL			STEEL CURB & ALUMINUM COVERS			ALUMINUM		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.
48 x 48	1219 x 1219	DSH4848	367	166	DSH4848A	315	143	DSH4848B	260	118
48 x 72	1219 x 1829	DSH4872	455	206	DSH4872A	390	177	DSH4872B	320	145
48 x 90	1219 x 2286	DSH4890	544	247	DSH4890A	460	209	DSH4890B	380	172
48 x 96	1219 x 2438	DSH4896	617	280	DSH4896A	485	220	DSH4896B	390	177
60 x 60	1524 x 1524	DSH6060	695	315	DSH6060A	445	202	DSH6060B	330	150
60 x 72	1524 x 1829	DSH6072	735	333	DSH6072A	480	218	DSH6072B	380	172
60 x 84	1524 x 2134	DSH6084	835	379	DSH6084A	565	256	DSH6084B	420	191
60 x 96	1524 x 2438	DSH6096	860	390	DSH6096A	585	265	DSH6096B	425	193
60 x 120	1542 x 3048	DSH60120	1047	475	DSH60120A <sup>†</sup>	710	322	DSH60120B <sup>†</sup>	530	240
66 x 66	1676 x 1676	DSH6666	650	295	DSH6666A	455	206	DSH6666B	395	179
66 x 144	1676 x 3658	DSH66144*	1530	694	DSH66144A*	1060	481	DSH66144B*	790	358
72 x 72	1829 x 1829	DSH7272	790	358	DSH7272A	555	252	DSH7272B	415	188

<sup>†</sup> This size has 2" thick covers with 2" of insulation. \* This size has four covers.



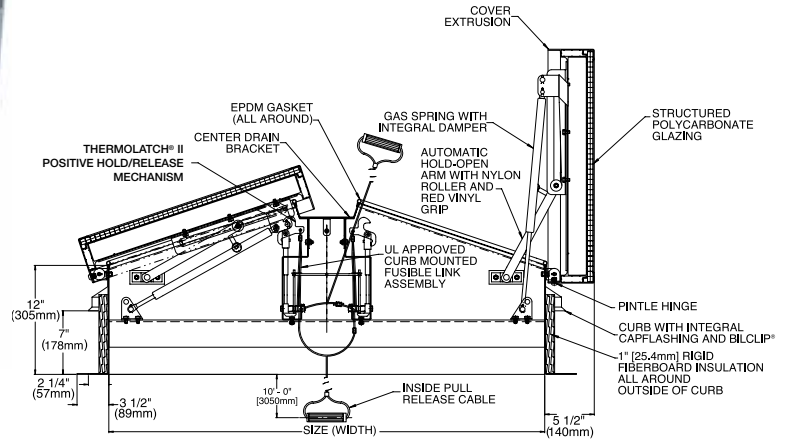
# The Lumivent® Double Leaf – Daylighting

## Sloped Cover Design

Meets International Building Code Requirements (2012 IBC 2610.3)



Optional anodized finish shown



### Description:

All the security and value of an automatic smoke vent with the added benefits of a skylight.

### Specifications:

#### Material

Cover and frame are 11 gauge (2.3mm) aluminum

#### Covers

Constructed with a translucent multi-wall polycarbonate sheet\* coated for UV resistance with rigid extruded aluminum frame. Glazing shall withstand a 40 psf (195 kg/m<sup>2</sup>) live load and provide an R-factor of 2.38 per ASTM D236.

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Dual durometer, co-extruded, EPDM rubber gasket mechanically fastened to the top of the curb

#### Hinges

Heavy-duty stainless steel pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link with a separate latching point for each cover. Designed to hold the covers closed against a 90 psf (438 kg/m<sup>2</sup>) wind uplift force. Provided with interior and exterior pull release cables to manually open vent covers.

#### Operation

High performance gas springs open covers automatically against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load when released. Gas springs have integral dampers to assure a controlled rate of cover opening and have a cyclic durability of 50,000 cycles. Automatic hold-open arms lock each cover in the full open position.

#### Performance Ratings

UL-listed. Covers with 4:12 slope to comply with International Building Code Requirements (2012 IBC 2610.3)

#### Finish

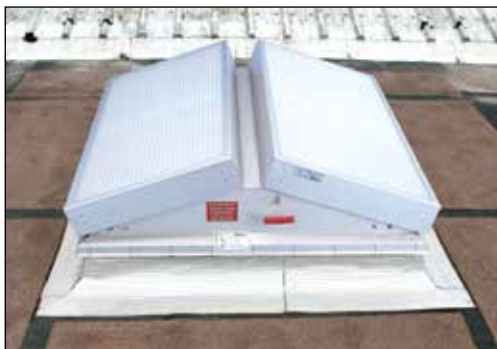
Mill finish

#### Hardware

Gas springs have a powder coated outer tube and chrome plated inner rod. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



Features a multi-wall polycarbonate cover design that resists UV degradation and offers superior insulation performance compared to traditional domes



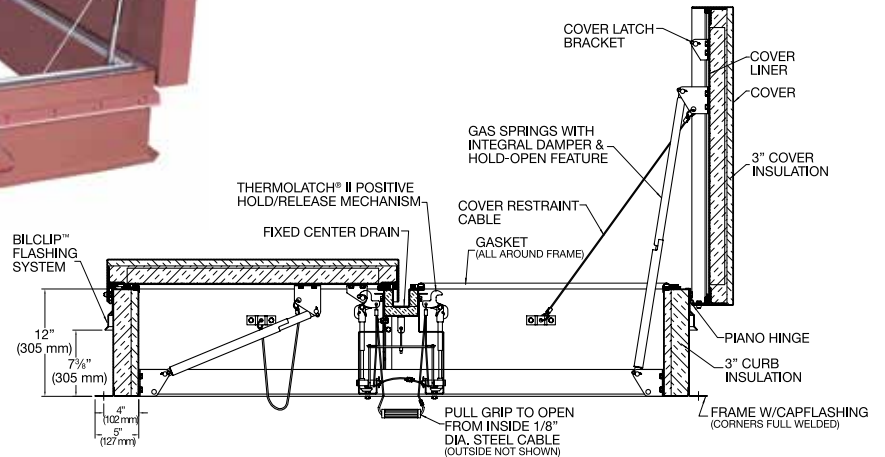
### Standard Sizes and Weights

SIZE		STEEL		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
48 x 48	1219 x 1219	LV4848B	226	103
48 x 72	1219 x 1829	LV4872B	296	134
48 x 96	1219 x 2438	LV4896B	366	166
60 x 60	1524 x 1524	LV6060B	308	140
60 x 96	1524 x 2438	LV6096B	388	176
66 x 144	1676 x 3658	LV66144B†	722	328

\*The Bilco Lumivent smoke vent was designed and tested to meet the requirements of UL 793. As part of this testing procedure, UL 793 requires that the polycarbonate covers be subjected to a 400 ft. lb. test and remain intact to meet the OSHA fall protection standard CFR 1910.23. The Bilco Lumivent smoke vent meets or exceeds these requirements.

† This size has four covers.

# Type ACDSH Double Leaf – Acoustical



**STC-46 SOUND RATING**  
THE HIGHEST RATING ON THE MARKET

**Description:**

Available in a number of standard UL-listed sizes, these vents are designed to guard against noise intrusion and at the same time provide the security of dependable automatic venting in the event of a fire. Vents carry an STC-46 sound rating and are ideal for concert halls, theaters, casinos, and other interior applications that require limited noise from the outside.

**Specifications:**

**Material**

Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel

**Covers**

Brakeformed, hollow-metal design with 3" (76 mm) concealed fiberglass insulation, 5" (127 mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing and 3" (76 mm) fiberglass insulation that is fully enclosed by a 14 gauge (1.9 mm) G-90 paint bond galvanized steel liner. Curb has fully welded corners and a 5" (127 mm) mounting flange with 7/16" holes (11 mm) provided for securing to the roof deck.

**Gasket**

Extruded PVC gaskets permanently adhered to underside of the covers and top of curb

**Hinges**

Heavy-duty zinc plated piano hinges with 1/4" (6 mm) hinge pins

**Latch**

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link with a separate latching point for each cover. Designed to hold the covers closed against a 90 psf (438 kg/m<sup>2</sup>) uplift force. Interior and exterior pull release cables provided for manual vent operation.

**Operation**

Corrosion resistant gas springs open covers automatically against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load when released. Gas springs have built in dampers to assure a controlled rate of opening and automatically lock the covers in the full open position.

**Performance Ratings**

UL listed. STC-46 sound rating. Complies with UL 790 Class A (burning brand test)

**Finish**

Alkyd base red oxide primer

**Hardware**

Corrosion-resistant gas springs and hot dip galvanized steel stop cables. All other hardware is zinc plated/chromate sealed



**Standard Sizes and Weights**

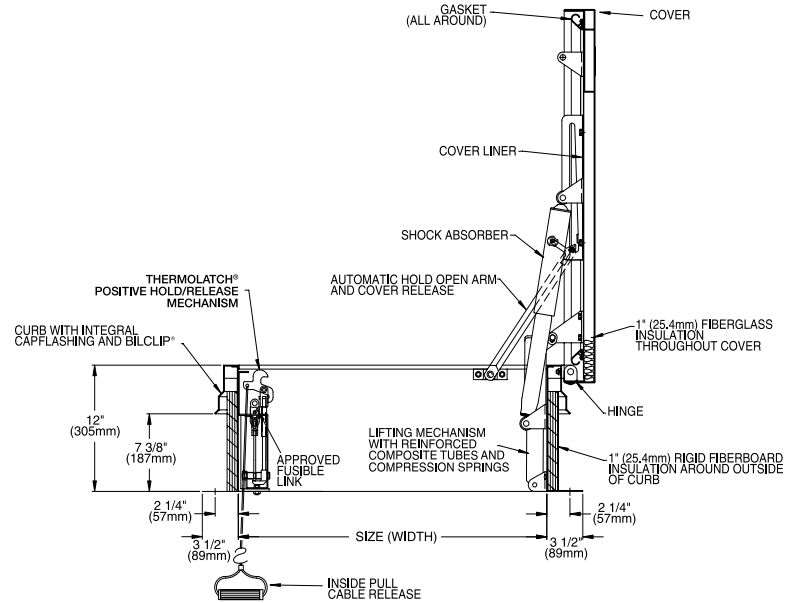
Contact Bilco for special size requirements

SIZE		STEEL		
(width x length)		Model #	Shipping Weight	
inches	mm		lbs.	kg.
48 x 48	1219 x 1219	ACDSH4848	650	295
48 x 60	1219 x 1524	ACDSH4860	755	343
48 x 72	1219 x 1829	ACDSH4872	845	383
48 x 90	1219 x 2286	ACDSH4890	985	447
48 x 96	1219 x 2438	ACDSH4896	1045	474
60 x 60	1524 x 1524	ACDSH6060	870	395
60 x 96	1524 x 2438	ACDSH6096	1120	508
60 x 120	1524 x 3048	ACDSH60120*	1550	703
66 x 144	1676 x 3658	ACDSH66144*	1650	749
72 x 72	1829 x 1829	ACDSH7272	1050	476

\* This size has four covers.



# Type SV Single Leaf



### Description:

For applications requiring smaller vents, single leaf models are available in galvanized steel or aluminum construction and can be provided with polycarbonate domes for added daylight.

### Specifications:

#### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum

#### Cover

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Extruded EPDM rubber gasket permanently adhered to the cover

#### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link. Designed to hold the cover closed against a 90 psf (438 kg/m<sup>2</sup>) uplift force. Provided with interior and exterior pull release cables to manually open vent cover.

#### Operation

Compression springs enclosed in telescopic tubes open covers automatically against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load when released. Automatic hold-open arms lock the cover in the full open position. Cover is supplied with a shock absorber to assure a controlled rate of opening.

#### Performance Rating

Complies with UL 790 Class A (burning brand test)

#### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish

#### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



### Standard Sizes and Weights **Contact Bilco for special size requirements**

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			ALUMINUM WITH POLYCARBONATE DOME		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	S-20SV	193	88	S-40SV	160	73	S-50SV	112	51	GS-50SV	170	78
30 x 54	762 x 1372	NB-20SV	260	118	NB-40SV	215	98	NB-50SV	155	70	Consult Factory		
30 x 96	762 x 2438	L-20SV	423	192	L-40SV	315	143	L-50SV	240	109	Consult Factory		



# Roof Access Hatches/Automatic Smoke Vents

## Common Options

### Stainless Steel Hardware

For installation in highly corrosive environments, Bilco smoke vents and roof hatches may be equipped with Type 316 stainless steel hardware, including: slam latch and lifting mechanism assemblies; hold-open arms and guides; and all brackets, hinges, pins, and fasteners.



*Stainless Steel Hardware*

### Curb Options

All Bilco roofing products may be specified with either a curb liner (metal insulation liner of the same materials as the curb and capflashing) or a fully enclosed curb (full metal insulation liner of the same materials as the curb, which replaces the capflashing). Built-in louvers are available for roof hatches and for automatic smoke vents to meet elevator-shaft code requirements. Base flanges can be supplied with configurations for most brands of metal building roof panels. This option offers simplified installation, and includes a built-in self-drainage feature that eliminates water accumulation on the up-slope side.



*Built-in Louvers*



*Curb Modification for Metal Buildings*

### Insulation

Bilco offers insulation options to enhance the energy efficiency of its roofing products. Standard roof products are supplied with standard 1" (25mm) fiberglass insulation in the covers and 1" (25mm) fiberboard insulation in the curb. When specified, products can be supplied with up to 2" (50mm) of Styrofoam or Polyisocyanurate insulation in the cover and curb.

### Special Finishes

Standard roof products are supplied in mill finish aluminum or galvanized steel with a red oxide primer finish. When specified, custom finishes can be supplied on Bilco roofing products. Common options include Kynar® or Tnemec® paint finishes and anodized aluminum.

### Motorized or Winch Operation

To provide a convenient means of ventilating work areas, automatic smoke vents can be equipped with motor operators for actuation by remote push-button control or other electrical signal. They can also be furnished with rigging for manual winch operation at the floor level. Roof hatches can also be designed for motor or winch operation.



*Motorized Operation*



*Winch Operation*

### Other Options

In addition to standard options, Bilco's custom engineering capabilities can provide you with the exact roof product to meet your unique requirements.



# Roof Hatch

## Security

All Bilco roof hatches are supplied with a standard slam lock that includes an interior and exterior padlock hasp to prevent unauthorized access. Bilco also offers the options listed below for enhanced building security.

## Keyed Cylinder Locks

Deadbolt cylinder locks provide keyed exterior access and are available with either keyed or turn knob interior access. Cylinder locks are an ideal security enhancement for many applications. For added security and weathertightness, the lock cylinder is accessed from the exterior through a gasketed, threaded deck plate.



Keyed Cylinder Locks

## Detention Locks

Detention locks provide keyed interior and exterior access and are ideal for correctional facilities and other buildings requiring a maximum level of security. For added security and weathertightness, the lock is accessed from the exterior through a gasketed, threaded deck plate. Bilco roof hatches can be prepared for field installation of many leading lock brands.



Detention Locks

## Emergency Egress Lock

Bilco roof hatches can be supplied with a panic lock for rapid egress in an emergency situation. Panic locks are available with keyed exterior access when specified.

## Indicator Switches

Allow roof hatches to be wired into a building's alarm system. Indicator switches are curb mounted and send a signal to the alarm control panel when the hatch cover is opened.

## Security Glazing

Security glazing allows personnel to visibly scan a secure area before entering or exiting a roof area. Glazing is available in a number of ballistic ratings with varying levels of security.



Security Glazing

# Automatic Smoke Vent

## Electric Activation

Automatic smoke vents can be supplied with an electric Thermolatch® to allow the vents to be operated by a smoke detector or fire alarm control panel. In addition to electric activation, these vents feature fusible link activation and provisions for manual operation. Electric latches can be supplied for 115 VAC, 24 VAC, 220 VAC, and 24V DC power requirements.



Explosion Vents

## Explosion Vents

Bilco automatic smoke vents may also be equipped to operate as explosion vents or as combination fire/explosion vents. The explosion release mechanism is preset and factory-tested to release at between 25 lb/ft<sup>2</sup> and 30 lb/ft<sup>2</sup> (122 kg/m<sup>2</sup> and 146 kg/m<sup>2</sup>) of pressure on the underside of the covers.

## Security Grilles

Heavy bars permanently welded in place across the curb opening. Bars are spaced to prevent building access and maximize ventilation area.

## Indicator Switches

Allow vents to be wired into a building's alarm system. Indicator switches are curb mounted and send a signal to the alarm control panel when the vent covers are opened.

## Lockable Enclosure

The exterior manual pull release may be supplied with an enclosure that can be padlocked to prevent unauthorized opening of the covers from the roof level.

Floor access doors provide reliable access to equipment stored underground or below/between building floors. Models include drainage doors, non-drainage doors, doors designed to receive flooring materials, doors for interior building applications, and fire-rated floor doors, as well as a number of special application doors.

## Typical Applications

- Airports
- Correctional Facilities
- Electric Utilities
- Factories
- Hospitals
- Manufacturing Facilities
- Natural Gas Utilities
- Office Buildings
- Processing Plants
- Retail Structures
- Schools
- Telecommunications Vaults
- Transit Systems
- Warehouses
- Water/Waste Treatment Plants

## Features & Benefits

- Constructed with corrosion-resistant materials and hardware for harsh environments
- Lift assistance for smooth, easy, one-hand operation
- Covers available with pedestrian or vehicular load reinforcing
- Rugged welded construction is designed for many years of trouble-free service
- Offered in aluminum or steel construction with custom sizes and options readily available

### *Channel Frame – Drainage*

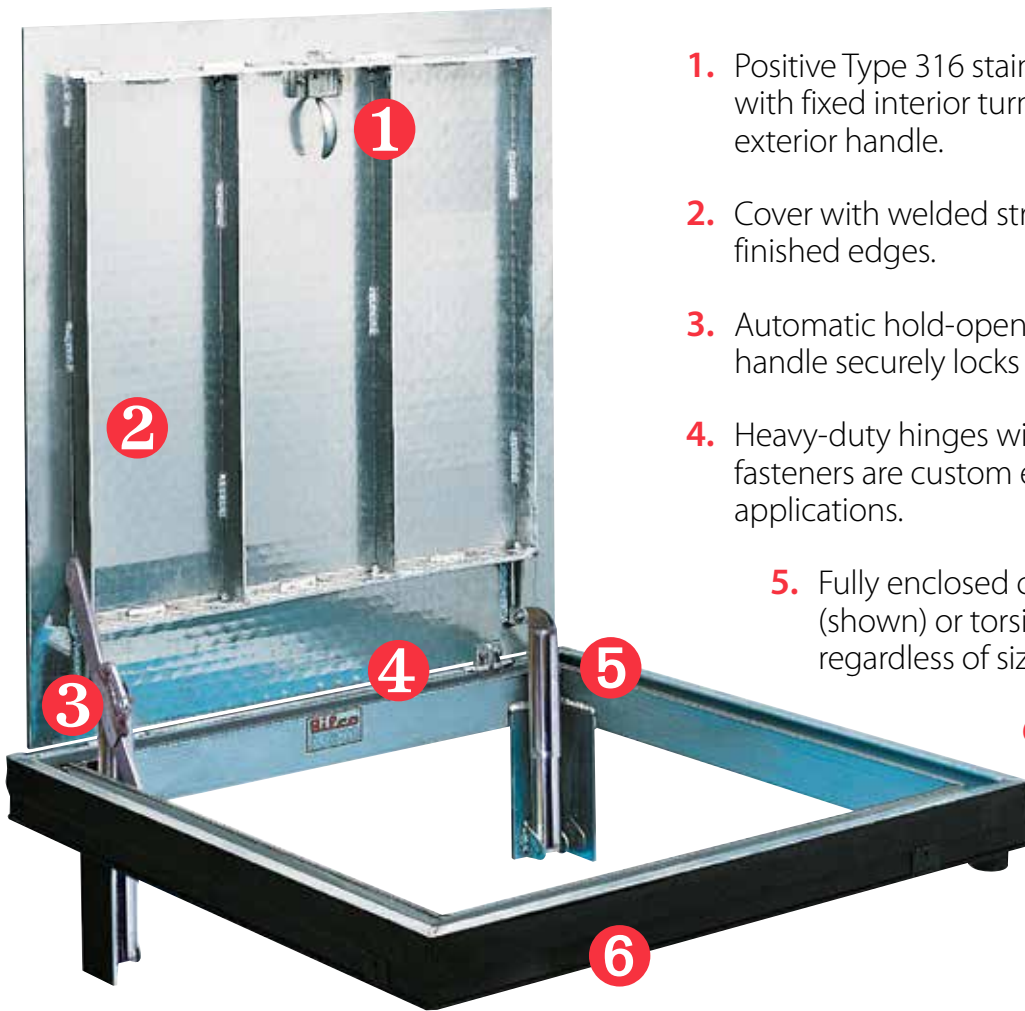
Constructed for use in exterior applications or in those situations where there is concern of water or other liquids entering the access opening. These doors are supplied with a threaded drain coupling fully welded to the channel frame for connection to a dry or wet well in the field.

### *Angle Frame – Non-Drainage*

Generally for interior use or exterior applications where water or liquid infiltration is not a concern.







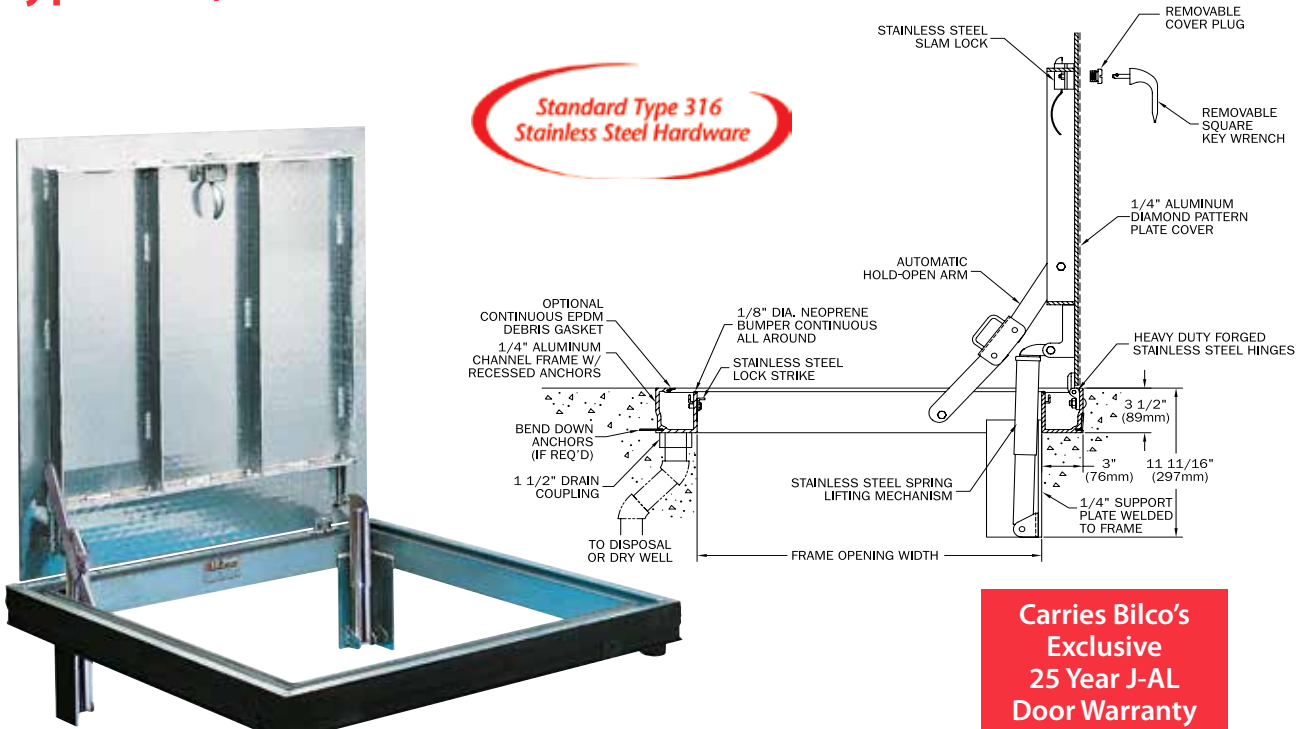
1. Positive Type 316 stainless steel latching mechanism with fixed interior turn handle and removable exterior handle.
2. Cover with welded structural reinforcing and finished edges.
3. Automatic hold-open arm with convenient release handle securely locks the cover in the open position.
4. Heavy-duty hinges with tamper-proof exterior fasteners are custom engineered for horizontal door applications.
5. Fully enclosed compression spring operators (shown) or torsion bars counterbalance covers regardless of size or weight.
6. Bituminous coating applied to the exterior of the frame on all aluminum products.

Type J-AL Door shown with channel frame





# Type J-AL, J-DAL Aluminum Channel Frame Door



**Carries Bilco's  
Exclusive  
25 Year J-AL  
Door Warranty**

**Description:**

Ideal for most corrosive environments. Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 300 lb/ft<sup>2</sup> (1464 kg/m<sup>2</sup>) live load. Features standard Type 316 stainless steel hardware and a versatile anchoring system for ease of installation.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Diamond-pattern tread plate reinforced for 300 psf (1464 kg/m<sup>2</sup>) live load

**Frame**

Extruded aluminum channel frame with bend down anchor tabs around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

**Hinges**

Heavy forged stainless steel hinges with 1/4" (6.3mm) Type 316 stainless steel hinge pins

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm locks the cover in the open position.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

All hardware is Type 316 stainless steel

**Standard Sizes and Weights**

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	J-1AL	65	30
30 x 30	762 x 762	J-2AL	88	40
36 x 30	914 x 762	J-3AL	97	44
36 x 36	914 x 914	J-4AL	108	49
42 x 42	1067 x 1067	J-5AL	135	61
48 x 30	1219 x 762	JD-1AL	145	66
48 x 48	1219 x 1219	JD-2AL	173	79
48 x 72	1219 x 1829	JD-3AL	234	106
60 x 60	1524 x 1524	JD-4AL	241	109

Models with "D" in the Model # indicate double leaf configuration

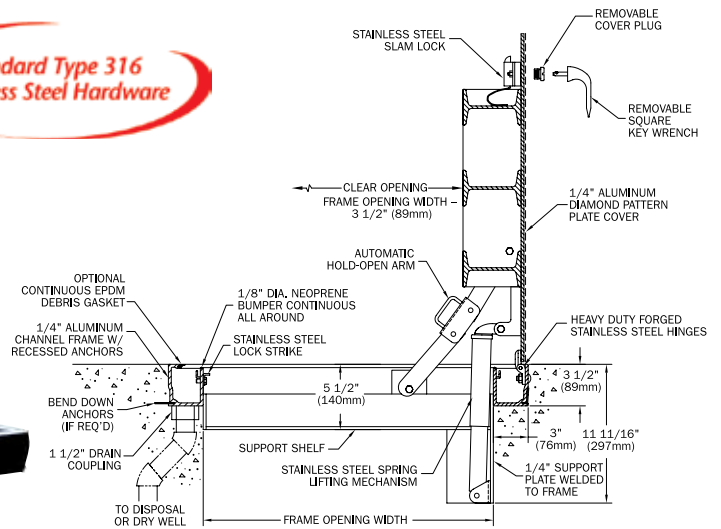




# Type J-AL-H20, J-DAL-H20 Aluminum Channel Frame Door



**Standard Type 316  
Stainless Steel Hardware**



**Carries Bilco's  
Exclusive  
25 Year J-AL  
Door Warranty**

## Description:

Designed to withstand vehicular traffic in off-street locations. Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for AASHTO H-20 wheel loading. With all the same features as the Type J-AL, this door is also ideal for most corrosive environments.

## Specifications:

### Material

Cover and frame are 1/4" (6.35mm) aluminum

### Cover

Diamond-pattern tread plate reinforced for H-20 wheel loading. Designed for installation in off-street locations where the door is not subjected to high-density, fast-moving traffic. Structural calculations available upon request.

### Frame

Extruded aluminum channel frame with bend down anchor tabs around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

### Hinges

Heavy forged stainless steel hinges with 1/4" (6.3mm) Type 316 stainless steel hinge pins

### Latch

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm locks the cover in the open position.

### Finish

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

### Hardware

All hardware is Type 316 stainless steel

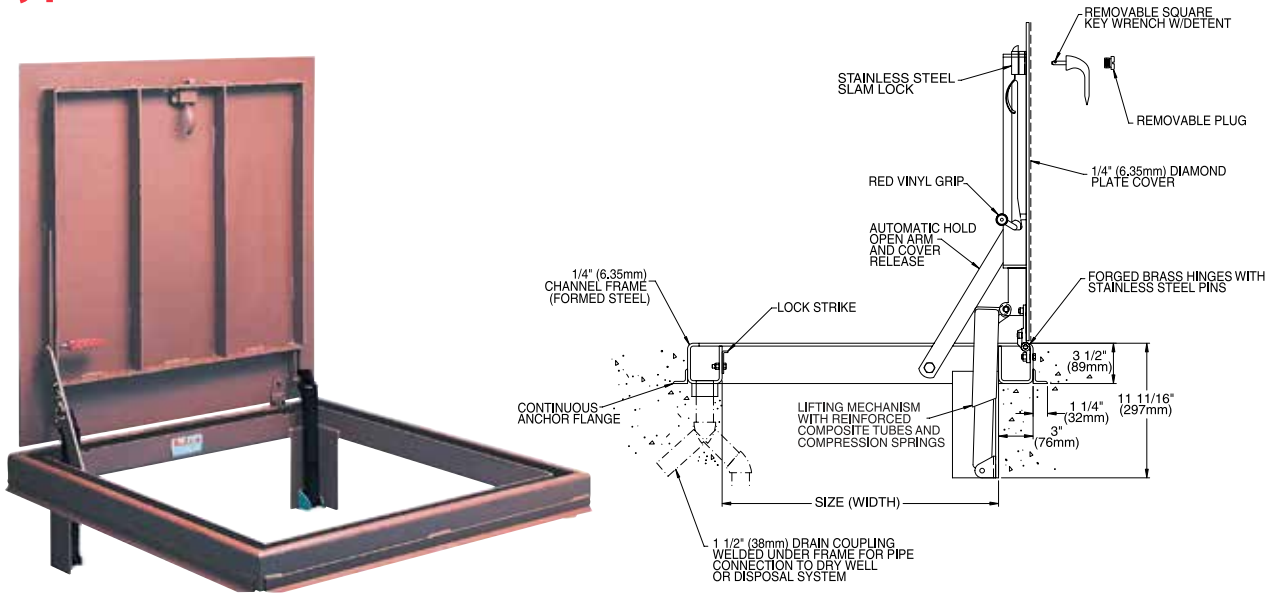
## Standard Sizes and Weights

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	J-1AL H20	110	50
30 x 30	762 x 762	J-2AL H20	124	56
36 x 30	914 x 762	J-3AL H20	165	75
36 x 36	914 x 914	J-4AL H20	174	79
42 x 42	1067 x 1067	J-5AL H20	235	107
48 x 30	1219 x 762	JD-1AL H20	201	91
48 x 48	1219 x 1219	JD-2AL H20	293	133
48 x 72	1219 x 1829	JD-3AL H20	485	220
60 x 60	1524 x 1524	JD-4AL H20	500	227

Models with "D" in the Model # indicate double leaf configuration



## Type J, JD Steel Channel Frame Door



**Description:**

Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 300 lb/ft<sup>2</sup> (1464 kg/m<sup>2</sup>) live load. Features reinforced composite spring tubes, heavy forged brass hinges, and zinc plated/chromate sealed hardware.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) steel

**Cover**

Diamond-pattern tread plate reinforced for 300 psf (1464 kg/m<sup>2</sup>) live load

**Frame**

Formed channel frame with full anchor angle welded around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

**Hinges**

Heavy forged brass hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

Alkyd base red oxide primer

**Hardware**

Engineered composite compression spring tubes. Steel compression springs. Slam lock and all fasteners are Type 316 stainless steel. All other hardware is zinc plated/chromate sealed.



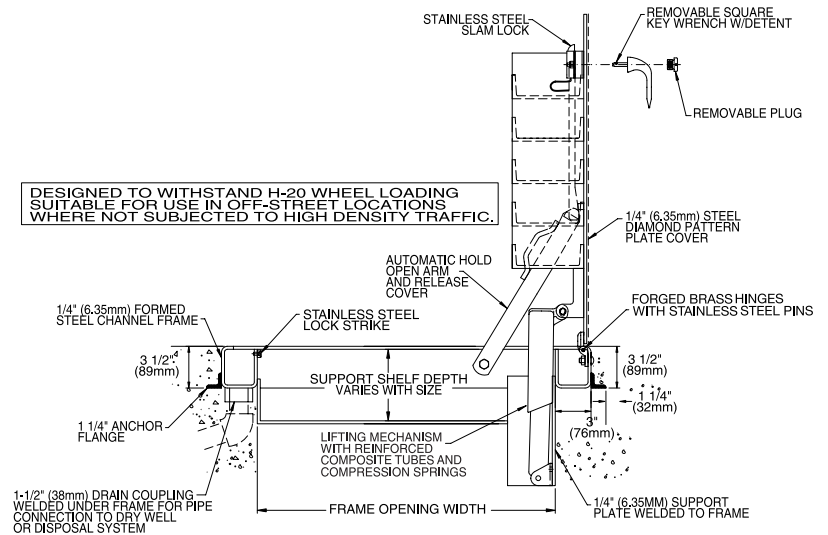
**Standard Sizes and Weights**

SIZE		STEEL	STEEL	
(width x length)			Model #	Weight
inches	mm			lbs.
24 x 24	610 x 610	J-1	179	81
30 x 30	762 x 762	J-2	231	105
36 x 30	914 x 762	J-3	274	124
36 x 36	914 x 914	J-4	300	136
42 x 42	1067 x 1067	J-5	402	182
48 x 30	1219 x 762	JD-1	365	166
48 x 48	1219 x 1219	JD-2	498	226
48 x 72	1219 x 1829	JD-3	652	296
60 x 60	1524 x 1524	JD-4	663	301

Models with "D" in the Model # indicate double leaf configuration



# Type J-H20, JD-H20 Steel Channel Frame Door



### Description:

Designed to withstand vehicular traffic in off-street locations. Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for AASHTO H-20 wheel loading. Features reinforced composite spring tubes, heavy forged brass hinges and zinc plated/chromate sealed hardware.

### Specifications:

#### Material

Cover and frame are 1/4" (6.35mm) steel

#### Cover

Diamond-pattern tread plate reinforced for H-20 wheel loading. Designed for installation in off-street locations where the door is not subjected to high-density, fast-moving traffic. Structural calculations available upon request.

#### Frame

Formed channel frame with full anchor angle welded around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

#### Hinges

Heavy forged brass hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

#### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

#### Finish

Alkyd base red oxide primer

#### Hardware

Engineered composite compression spring tubes. Steel compression springs. Slam lock and all fasteners are Type 316 stainless steel. All other hardware is zinc plated/chromate sealed.



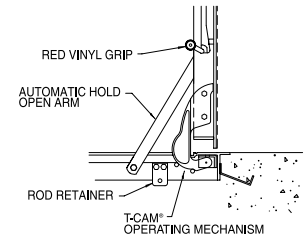
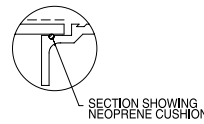
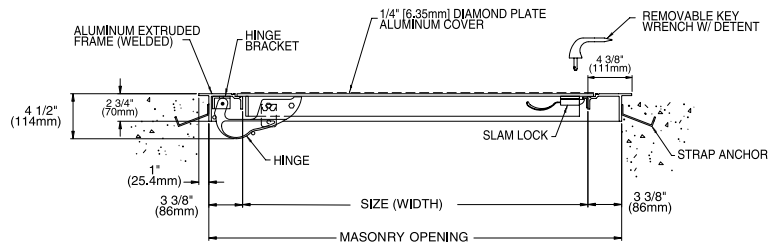
### Standard Sizes and Weights

SIZE		STEEL		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	J-1 H20	250	113
30 x 30	762 x 762	J-2 H20	350	159
36 x 30	914 x 762	J-3 H20	425	193
36 x 36	914 x 914	J-4 H20	490	222
42 x 42	1067 x 1067	J-5 H20	635	288
48 x 30	1219 x 762	JD-1 H20	532	241
48 x 48	1219 x 1219	JD-2 H20	815	370
48 x 72	1219 x 1829	JD-3 H20	1235	560
60 x 60	1524 x 1524	JD-4 H20	1180	535

Models with "D" in the Model # indicate double leaf configuration



# Type K, KD Aluminum Angle Frame Door



**Description:**

Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 150 lb/ft<sup>2</sup> (732 kg/m<sup>2</sup>) live load. Features zinc plated and chromate sealed hardware, concealed hinges and the T-CAM® lifting system for ease of operation.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Diamond-pattern tread plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load

**Frame**

Extruded aluminum angle frame with strap anchors bolted around the perimeter

**Hinges**

Cast steel cam-action hinges that are concealed from the exterior of the door

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle

**Lift Assistance**

Torsion bars that pivot on cam-action hinges. Automatic hold-open arm with grip handle release.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Zinc plated/chromate sealed

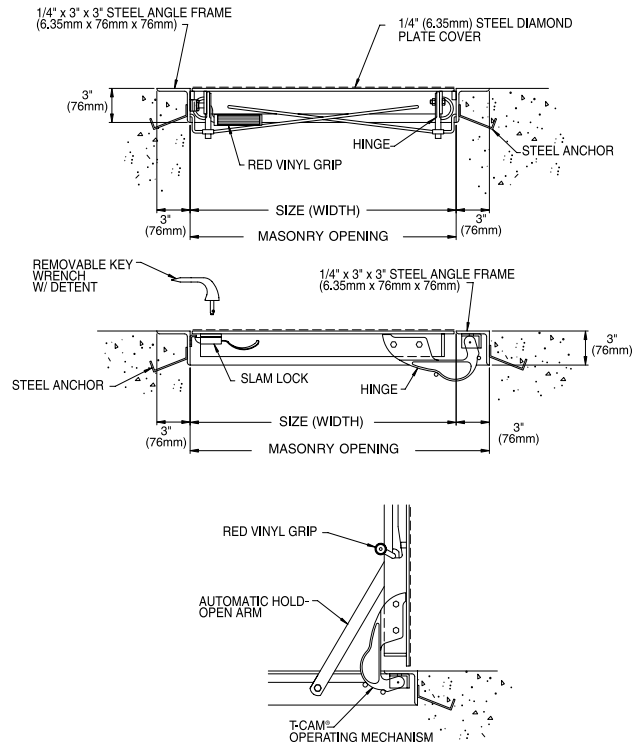
**Standard Sizes and Weights**

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	K-1	50	23
30 x 30	762 x 762	K-2	65	30
36 x 30	914 x 762	K-3	77	35
36 x 36	914 x 914	K-4	86	39
42 x 42	1067 x 1067	K-5	109	50
48 x 48	1219 x 1219	KD-2	152	69
48 x 72	1219 x 1829	KD-3	214	97
60 x 60	1524 x 1524	KD-4	222	101

Models with "D" in the Model # indicate double leaf configuration



# Type Q Steel Angle Frame Door



**Description:**

Single leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 150 lb/ft<sup>2</sup> (732 kg/m<sup>2</sup>) live load. Features zinc plated and chromate sealed hardware, concealed hinges and the T-CAM<sup>®</sup> lifting system for ease of operation.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) steel

**Cover**

Diamond-pattern tread plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load

**Frame**

Steel angle frame with strap anchors welded around the perimeter

**Hinges**

Cast steel cam-action hinges that are concealed from the exterior of the door

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle

**Lift Assistance**

Torsion bars that pivot on cam-action hinges. Automatic hold-open arm with grip handle release.

**Finish**

Alkyd base red oxide primer

**Hardware**

Zinc plated/chromate sealed

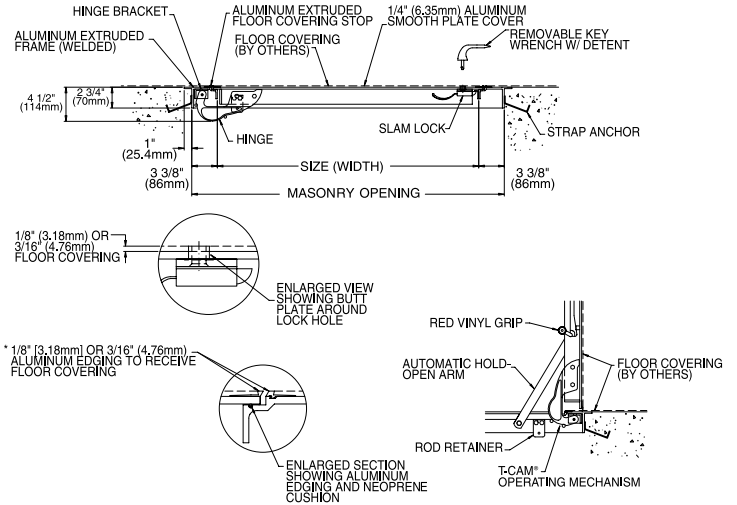
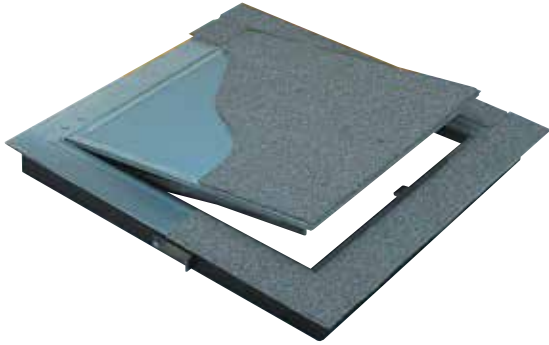
**Standard Sizes and Weights**

SIZE		STEEL	STEEL		
(width x length)			Model #	Weight	
inches	mm			lbs.	kg.
24 x 24	610 x 610	Q-1	122	55	
30 x 30	762 x 762	Q-2	166	75	
30 x 36	762 x 914	Q-3	190	86	
36 x 36	914 x 914	Q-4	219	100	



# Type T, TD Aluminum for Finished Flooring Materials

Accepts Carpet and Composition Flooring



\*Note: For direct glue down carpet (no pad), specify 3/16"

**Description:**

Single or double leaf doors are virtually hidden in interior applications. Will accept carpet or composition flooring material 1/8" (3.18mm) or 3/16" (4.76mm) in thickness. Features cover and frame mounted molding strips to accept floor covering and Type K hardware and construction.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Smooth plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load. Extruded aluminum molding adhered to the perimeter to accept floor-covering material [specify either 1/8" (3.2mm) or 3/16" (4.8mm) molding height].

**Frame**

Extruded aluminum angle frame with strap anchors bolted around the perimeter. Extruded aluminum molding fastened to the perimeter to accept floor-covering material [specify either 1/8" (3.2mm) or 3/16" (4.8mm) molding height].

**Hinges**

Cast steel cam-action hinges that are concealed from the exterior of the door

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle

**Lift Assistance**

Torsion bars that pivot on cam-action hinges. Automatic hold-open arm with grip handle release.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Zinc plated/chromate sealed

**Standard Sizes and Weights**

SIZE		ALUMINUM	Weight	
(width x length)			Model #	lbs.
inches	mm			
24 x 24	610 x 610	T-1	53	24
30 x 30	762 x 762	T-2	68	31
36 x 30	914 x 762	T-3	82	37
36 x 36	914 x 914	T-4	91	41
42 x 42	1067 x 1067	T-5	114	52
48 x 48	1219 x 1219	TD-2	172	78
48 x 72	1219 x 1829	TD-3	224	102
60 x 60	1524 x 1524	TD-4	230	104

Models with "D" in the Model # indicate double leaf configuration

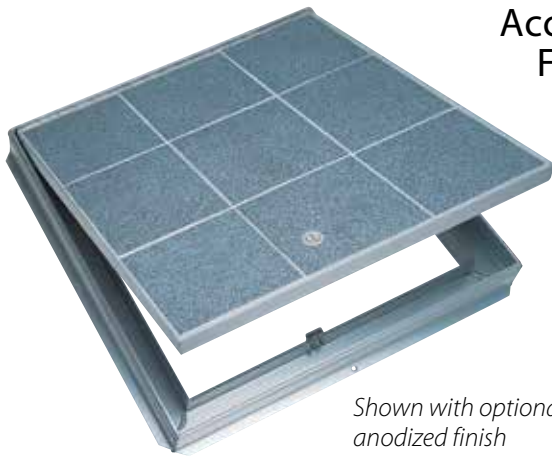




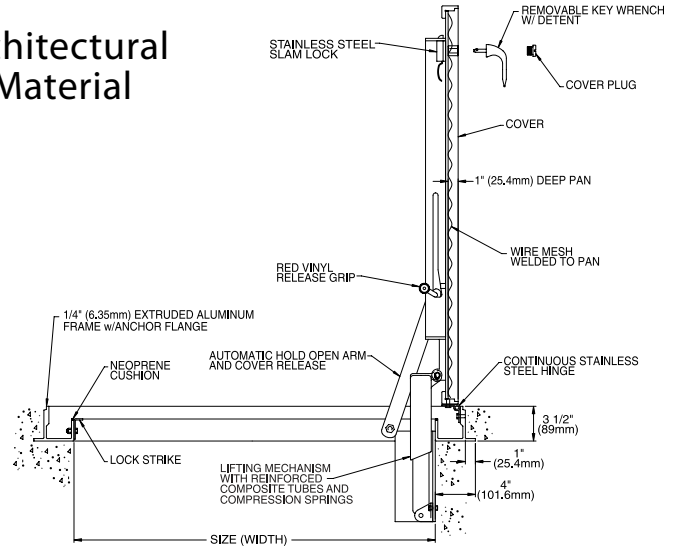


# Type TER, TRD Aluminum for Finished Flooring Materials

Accepts Architectural Flooring Material



Shown with optional anodized finish



**Description:**

Similar to the Type T in function, these single and double leaf doors are designed with a pan cover to accept a variety of flooring materials up to 1" (25.4mm) in thickness. Each door is spring balanced at the factory to ensure smooth, easy operation upon installation of the specified flooring material in the field. Note: Available with drain coupling for drainage applications.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Smooth plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load. Cover designed with 1" (25.4mm) fillable pan for field installation of architectural flooring material (specify flooring material including type, thickness and weight).

**Frame**

Extruded aluminum frame with built in anchor flange around the perimeter

**Hinges**

Continuous heavy-duty Type 316 stainless steel hinge

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



**Standard Sizes and Weights**

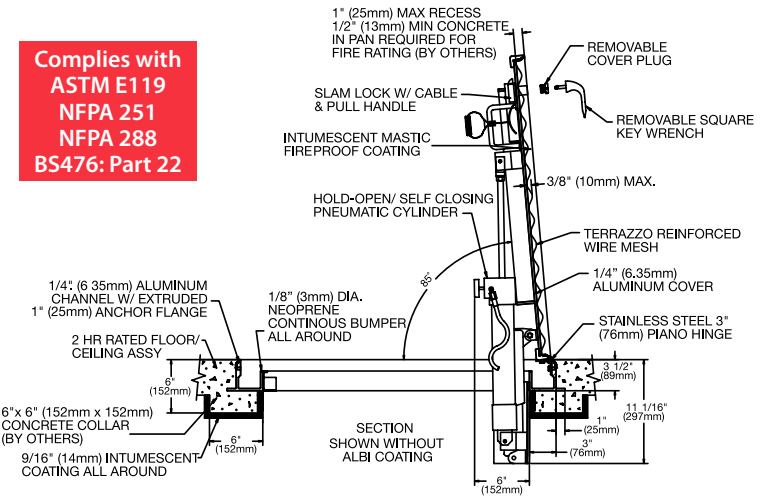
SIZE		ALUMINUM	Weight	
(width x length)			Model #	lbs.
inches	mm			
24 x 24	610 x 610	TER-1	100	45
30 x 30	762 x 762	TER-2	110	50
36 x 30	914 x 762	TER-3	120	54
36 x 36	914 x 914	TER-4	130	59
42 x 42	1067 x 1067	TER-5	165	75
48 x 48	1219 x 1219	TRD-2	200	91
48 x 72	1219 x 1829	TRD-3	275	125
60 x 60	1524 x 1524	TRD-4	285	129

Models with "D" in the Model # indicate double leaf configuration

# Type FR Fire-Rated Floor Door



**Complies with**  
**ASTM E119**  
**NFPA 251**  
**NFPA 288**  
**BS476: Part 22**



**Description:**

Maintains the fire rating of a 2-hour floor/ceiling assembly where access is required between building floors. Features include an optional UL Listed automatic closing system, intumescent fire resistant coating and a pan cover designed to accept architectural flooring materials.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Aluminum plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load. Intumescent fire coating applied to the underside of the cover. Designed with 1" (25.4mm) fillable pan for field installation of architectural flooring material up to 1/2" (12.7mm) thickness (specify flooring material including type, thickness and weight). The remaining depth must be filled with concrete to maintain the fire rating of the door assembly (if finish flooring is not desired, the pan must be filled with 1" (25.4mm) of concrete).

**Frame**

Extruded aluminum frame with built-in anchor flange around the perimeter Intumescent fire coating applied on the interior surfaces of the frame

**Hinges**

Continuous heavy-duty Type 316 stainless steel hinge

**Latch**

Pneumatic self closing system that automatically closes the door in the event of a fire when heat parts a UL-listed 165°F (74°C) fusible link

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Mechanical hold-open system with release button automatically holds the cover in the open position.

**Performance Ratings**

Tested in accordance with ASTM E119, NFPA 251, NFPA 288, BS476: Part 22 and UL-listed (File R15197) as having a 2-hour fire rating when exposed to fire from the underside

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



Self-closing mechanism Automatically closes the door in the event of a fire. Door remains firmly closed to prevent the spread of fire between building floors.

**Standard Sizes and Weights**

SIZE		ALUMINUM	ALUMINUM		ALUMINUM	
(width x length)			Model #	Clear Opening		Weight
inches	mm			inches	mm	lbs.
30 x 30	762 x 762	FR-2	29 x 23.75	736 x 603	271	123
36 x 30	914 x 762	FR-3	35 x 23.75	889 x 603	277	126
36 x 36	914 x 914	FR-4	35 x 29.75	889 x 755	326	148
42 x 42	1067 x 1067	FR-5	40 x 35.75	1016 x 908	368	167
30 x 48	762 x 1219	FR-6	29 x 41.75	736 x 1060	328	149

Specify Type FR-LC if closing mechanism is not required by local fire authorities having jurisdiction

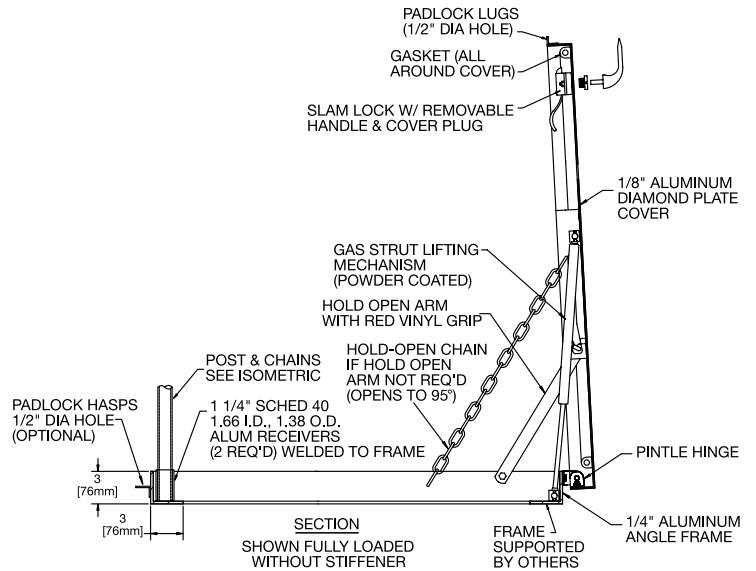




# Type SM Surface Mount Access Door



Shown with optional safety post & chains and padlock hasp



### Description:

Provides a cost effective solution for access to underground vaults that do not require the use of a flush-mounted door. Features a concealed internal mounting flange that makes installation easy and secure. Simply position the door over the vault opening and bolt it into place. Ideal for applications where the infiltration of contaminants is a concern. Its gasketed, over-lapping cover design sheds water and prevents debris and other pollutants from entering the opening.

### Specifications:

#### Material

1/8" (3mm) aluminum diamond plate cover and 1/4" (6mm) aluminum angle frame

#### Cover

Diamond-pattern tread plate reinforced for 105 psf (5 kpa) live load

#### Frame

1/4" x 3" x 3" (6.4mm x 76mm x 76mm) angle frame with internal mounting flange and 7/16" (11mm) diameter anchor holes

#### Gasket

Extruded EPDM rubber gasket permanently adhered to cover

#### Hinges

Heavy-duty, stainless steel pintle hinges with 3/8" (9.5mm) type 316 stainless steel hinge pins

#### Latch

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug. (For added security, specify: full welded exterior padlock hasp.)

#### Lift Assistance

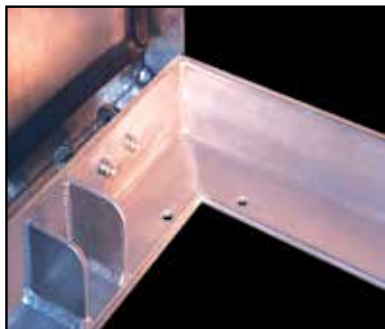
Gas strut lifting mechanism. Automatic hold-open arm with grip handle release.

#### Finish

Mill Finish aluminum

#### Hardware

Gas strut has a powder coat finish. All other hardware is type 316 stainless steel unless otherwise specified.



Internal Surface Mounting Flange



Concealed Stainless Steel Hinges

### Standard Sizes and Weights

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		inches	mm
24 x 24	610 x 610	SM-1	61	28
30 x 30	762 x 762	SM-2	71	32
36 x 30	914 x 762	SM-3	78	35
36 x 36	914 x 914	SM-4	86	39
42 x 42	1067 x 1067	SM-5	99	45



Along with its complete line of floor, vault, and sidewalk doors, Bilco's extensive custom-design capabilities can provide you with the exact door you need for your unique applications. Contact The Bilco Company for more information on any of these products.



**Doors for Extreme Loading Conditions**

The **Type HLC** is specially designed for extreme loading conditions generated by vehicles such as large aircraft, heavy equipment and forklift trucks. Doors will withstand a live load of 200 lb/in<sup>2</sup> (14 kg/cm<sup>2</sup>) plus 30% impact.

**Precast Vault Access Doors**

**Type PCM & PDCM** doors incorporate several innovative features which reduce the amount of labor required to cast the door into a concrete vault.



**Special Sizes**

**Type JD & JD-AL** doors can be manufactured to virtually any size to meet your unique access requirements. Even extremely large doors, such as the one shown, are designed for easy operation by one person.

**Emergency Evacuation Doors for Transit Systems**

**Type JD** and **JD-AL** doors can be designed to provide egress from underground, rapid transit system platforms and tunnels in emergency situations. Door is designed with stainless steel panic hardware and compression spring operators for ease of operations. Other important features include H-20 reinforcing, handrails, custom signage and a slip-resistant cover finish.



**Odor Control Access Doors** *(not shown)*

Type **J-AL** single leaf doors can be supplied with provisions for odor control by specifying Type **J-AL-R**. Doors are designed to contain odors and reduce the air leakage rate in odor emitting environments. Tested under a 1" (25.4mm) column of water, the Type **J-AL-R** door provides an air infiltration rate of less than 1 ft.<sup>3</sup>/min (0.28m<sup>3</sup>/min) per lineal foot of cover perimeter.

## Options Floor Access Doors

Bilco floor access doors can include any of the modifications shown below. In addition, Bilco's engineering department will custom design doors for your unique applications.

### Locking and Latching Devices

The following lock options are available to add security and prevent unauthorized access:



Cylinder lock with a keyway protected by a threaded cover plug



Recessed padlock hasp covered by a flush hinged lid



Security cover plugs

Additional lock options include padlock lugs welded to the exterior door surface, high security detention locks, and panic hardware for emergency egress. In addition to the options shown, Bilco's engineering department can custom design products to meet your security needs.

### Special Finishes

Where specified, Bilco Model J, JD, and Q doors and frames can be supplied with a hot-dip galvanized finish (ASTM A-123). All aluminum doors can be supplied with an anodized finish. Other custom finishes are available when specified.

### Stainless Steel Hardware

For installation in highly corrosive environments or when prolonged exposure to hot water or steam is anticipated, Bilco recommends stainless steel hardware. Standard Type 316 stainless steel hardware is featured on Type J-AL, JD-AL, J-AL H20 and JD-AL H20 doors. Other products can be supplied with stainless steel hardware upon request.

### Other Options

- Steel or aluminum grating
- Submersible pump guide rail brackets
- Metal enclosed insulation
- Slip resistant coatings
- Drop-in installation modifications
- Handrails
- Panic hardware
- Snow and ice melting cables
- Electric motor operation
- Fall protection grating (see page 38 for more information)
- Wireless Security system for Intrusion Detection (see page 39 for more information)



Stainless Steel Hardware



Special Finishes



Grating Panel Covers

## Fall Protection Grating System



Fall Protection Grating System allows workers to safely inspect pumps and monitor underground areas. System permanently mounts under access door covers and is available as a factory installed option on the following Bilco models:



- Type J, JD, J-AL, J-DAL 300 PSF (1464 kg/m<sup>2</sup>) and H-20 reinforced doors
- Available on all standard sizes
- Also available for special sizes — contact Bilco for more information
- Retrofit kits are also available for field installation (for door models noted above)

### Standard Features and Benefits

- Provides a permanent means of fall protection under access doors
- Exceeds OSHA fall protection requirements
- Features an aluminum grating with a safety-yellow powder coat finish for added durability
- Equipped with a stainless steel automatic hold-open device that securely locks the panel in the full open position
- Features stainless steel hardware for corrosion resistance
- Supplied with a padlock hasp for added security
- Backed by a 25-year manufacturer's warranty



*The unique pintle hinge design allows the fall protection grating panel to open to the full 90° position to maximize the area available for access*



### Specifications

Grating panel(s) shall be aluminum with a powder coat paint finish that is safety-yellow in color. Panel shall be designed to meet the requirements of OSHA standard 29 CFR 1910.23 and be equipped with a hold-open device to lock the grating panel(s) in the open position. Hold-open device and all hardware shall be Type 316 stainless steel. Manufacturer shall provide a 25-year warranty against defects in material and workmanship.





## Other Bilco Products

### CNIguard™ Intrusion Detection System

Wireless Security System protects access points in drinking water distribution systems against the threats of vandalism and intentional contamination.



- Wireless Security System eliminates the expense and time required to hard wire a traditional security monitoring system
- Utilizes a patented Smart Sensing Technology to detect tampering at access points (drilling, grinding, cutting, etc.)
- Computerized system distinguishes between threats and common occurrences (heavy rain, hail, etc.) to virtually eliminate costly false alarms
- Unlike video or audio surveillance systems, the CNIguard System does not rely on human interpretation to determine if a threat is real



Scan this tag to check out our product demonstration video

*"...the current strategy to secure national water supplies places the bulk of the responsibility on individual utilities..."*

— Excerpt from The Biological Threat to U.S. Water Supplies: Toward a National Water Security Policy

## Residential Products



### Bilco Basement Doors

Basement doors are ideal for access to basement storage areas and for moving large items into finished basement areas. The wide opening allows storage items such as deck and patio furniture, and large items such as pool tables and large furniture, to be easily moved in and out of a basement. Doors meet building code requirements for emergency egress and are available in prime painted steel and high-density polyethylene construction.



Now available with a powder coat paint finish. Scan this tag to watch our video.



### Window Well Systems

Add natural daylight and ventilation to basement rooms, making them as warm and comfortable as any area in the home. Window Well Systems meet building code requirements for emergency egress and are constructed from non-corrosive materials for many years of maintenance-free service. Systems simply snap or slide together on site for easy installation and dome covers are available to protect the well opening.



Log on to [www.bilco.com](http://www.bilco.com) to find a  
Sales Representative near you.



Scan this tag to find your  
Bilco Sales Representative

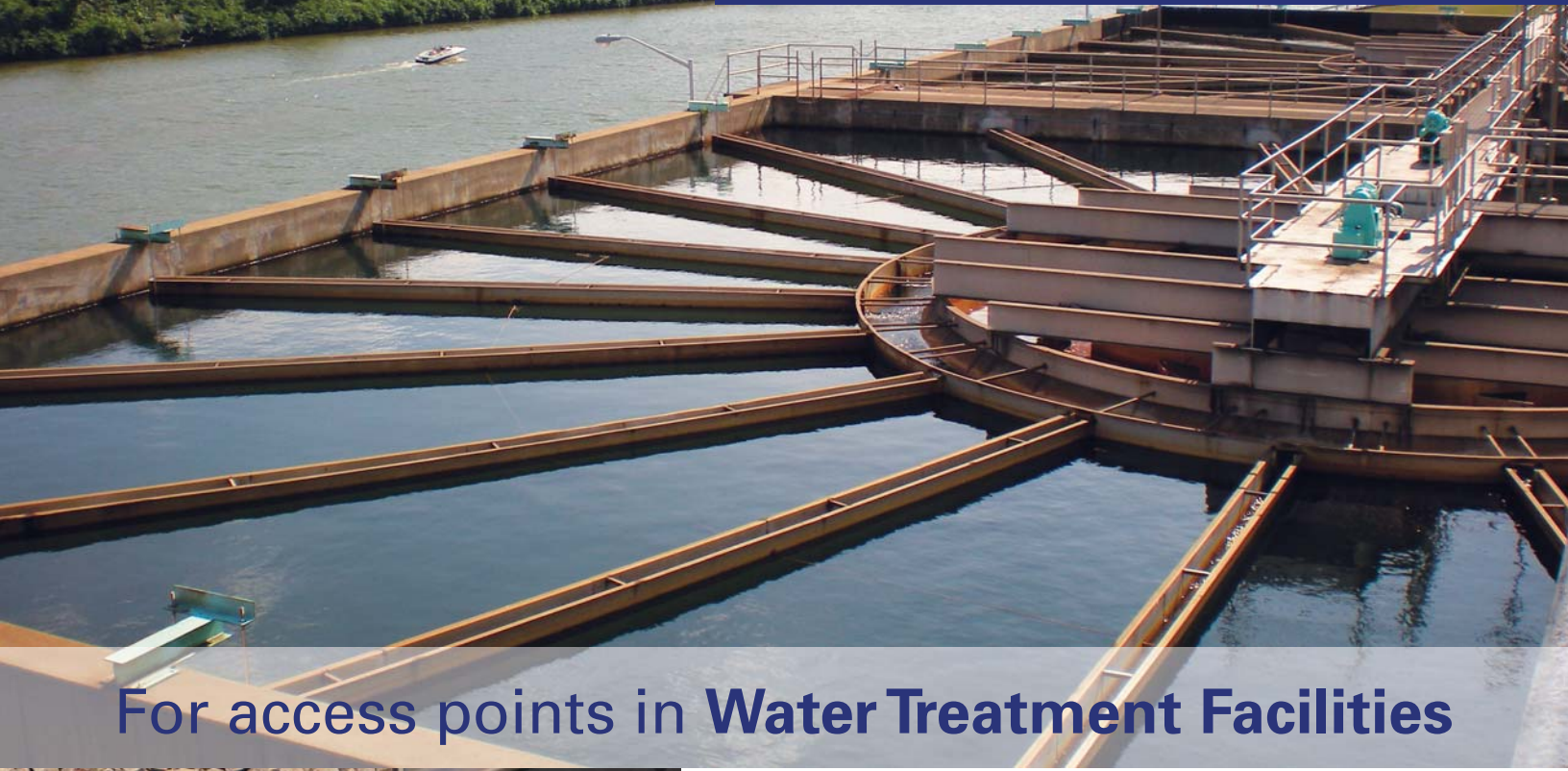
**The Bilco Company**  
P.O. Box 1203, New Haven, CT 06505 U.S.A.  
Phone: (800) 366-6530  
Fax: (203) 933-8478  
E-mail: [commercial@bilco.com](mailto:commercial@bilco.com)

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# INTRUSION DETECTION Wireless Security System



For access points in **Water Treatment Facilities**



**Bilco's CNIGuard™ Intrusion Detection System protects access points in drinking water distribution systems against the threat of intentional contamination.**

- Utilizes a patented Smart Sensing Technology to detect tampering at access points (drilling, grinding, sawing, etc.)
- Computerized system has the ability to distinguish between threats and common occurrences (heavy rain, hail, etc.) to virtually eliminate costly false alarms\*
- Unlike video or audio surveillance systems, the CNIGuard System does not rely on human interpretation to determine if a threat is real
- Designated as an anti-terrorism product as part of the U.S. Homeland Security Safety Act
- Tested and approved by the United Kingdom Security Services
- Installs easily on any access point and is ideal for pumping stations and wells in remote areas
- Eliminates the expense and time required to hard wire a traditional security monitoring system
- Installed system is protected with an annual service contract

\*Rated for one false alarm per year maximum

*Protecting water supplies from a deliberate biological attack on the distribution system has not been sufficiently addressed, partially due to a lack of scientific understanding of the true vulnerability of water supplies to intentional contamination with bioweapons. ...the current strategy to secure national water supplies places the bulk of the responsibility on **individual utilities...***

Excerpt from *The Biological Threat to U.S. Water Supplies: Toward a National Water Security Policy*

**PROTECTION THROUGH  
INNOVATION**



# BILCO INTRUSION DETECTION

## Wireless Security System



### Product Features

- Wireless system consists of a controller and detectors that are mounted on access points to monitor security.
- System uses radio signals to communicate between the controller and detectors at remote locations.
- Alarms can be received on standard cellular devices.
- Controller is hard wired into a facility's main power supply and connected into a standard SCADA monitoring system. Detectors are powered individually by lithium batteries.
- Detectors are equipped with antennas that transmit a signal to the controller if there is a security breach at the access point.
- Magnetic contact switches, which are virtually impossible to bypass, are used to monitor and control access.
- The radio communication is encrypted to prevent hacking.
- Rugged aluminum casing and superior electronics are designed to endure all weather conditions and the demanding requirements of industrial applications.

### One system monitors all of your access points

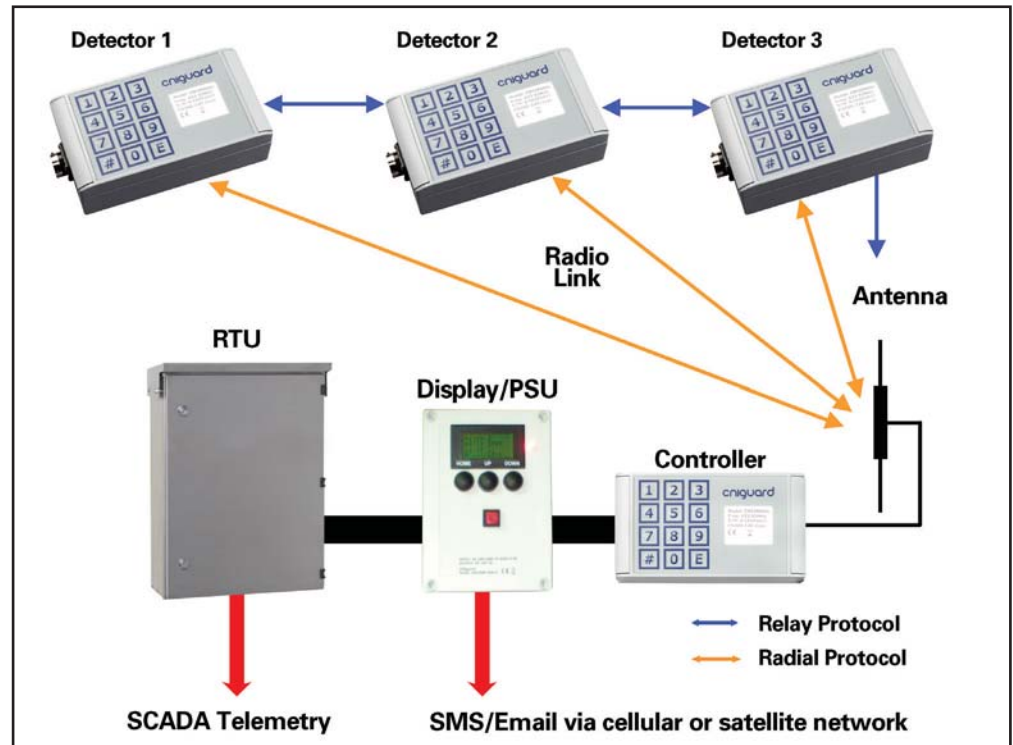
- Vertical Doors
- Access Doors and Hatches
- Cabinets and Enclosures
- Reservoir Tank Lids
- Gates

### ...and more

A single controller system will accept up to 254 detectors. Controllers can be added to the system if additional monitoring is required.

Detectors are designed for the integration of commercially available sensors to monitor operational requirements such as flooding, temperature and pressure changes, if required.

### The only proven wireless system on the market



The Bilco Company, New Haven, CT 06505  
 Phone: 1-800-366-6530 E-Mail: [cniguard@bilco.com](mailto:cniguard@bilco.com)  
[www.bilco.com](http://www.bilco.com)



The Worldwide Source for  
 Specialty Access Products

# Bil-Guard<sup>®</sup>

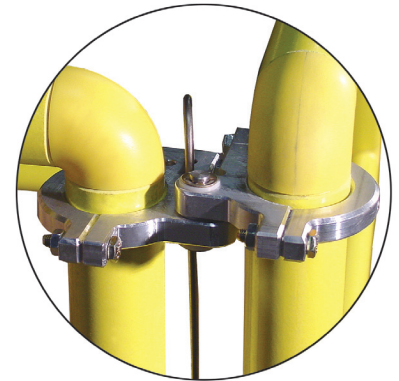
## Hatch Rail System



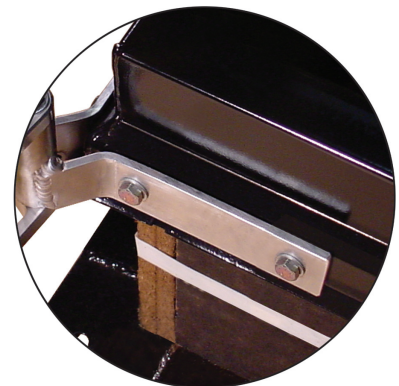
Patented

Shown on  
Type S-20  
3'0" x 2'6"  
Roof Hatch

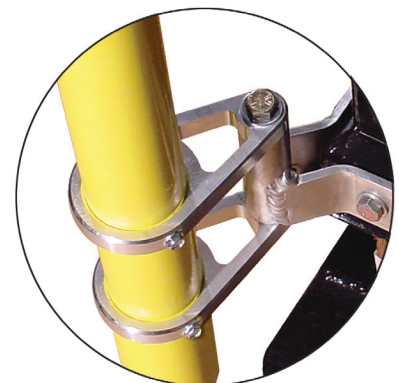
- High visibility safety yellow color
  - Non-penetrating attachment
  - Independently tested and proven to meet and exceed OSHA fall protection regulations for guardrails (29 CFR 1910.23)
  - Quick, simple installation using basic tools (no training or certification required)
  - Standard self-closing and locking gate feature
  - Corrosion resistant construction carrying a 25-year warranty
  - Fits all brands of roof hatches with capflashing
- Available in a variety of sizes



**Self Closing Gate Hinge**  
Ensures continuous protection



**Quick-Mount Bracket**  
For fast, secure attachment



**Pivoting Mounting Sleeve**  
For installation flexibility



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# Bilco's Bil-Guard® Hatch Rail System

Bilco's new Bil-Guard® (patented) is a fixed railing system that provides a permanent means of fall protection for hatch openings. Tested and proven to meet and exceed OSHA fall protection standards (29 CFR 1910.23), the Bil-Guard® features an innovative attachment system that does not penetrate the roofing membrane, installs quickly and easily using basic tools, and does not require special training or certification for proper installation.

The attachment system features a quick-mount bracket for a fast, secure attachment and a pivoting mounting sleeve for added installation flexibility. The Bil-Guard also incorporates a standard self-closing gate to ensure that the fall protection barrier is maintained and OSHA compliance is preserved.

*Shown on  
Type S Roof Hatch*



## Specifications:

### Material:

Posts and rails are constructed of a fiberglass reinforced polymer (FRP) that is pultruded and fire retardant.

### Finish:

FRP material has a molded-in, high visibility, safety yellow color and is treated with a UV inhibitor.

### Hardware:

Mounting brackets are fabricated from 1/4" thick hot dip galvanized steel. Gate hinges and post guides are constructed of 6063-T5 aluminum and torsion rod is type 302 stainless steel. All fasteners are type 316 stainless steel.

### Performance Ratings:

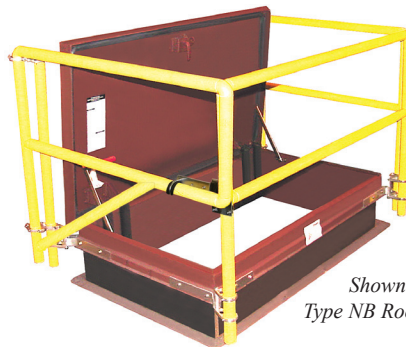
Hatch rail system satisfies the requirements of OSHA 29 CFR 1910.23 and meets OSHA strength requirements with a factor of safety of two.

### Warranty:

Twenty-five year warranty against defects in material and workmanship.

### Installation:

Hatch rail system attaches to the capflashing of a roof hatch and does not penetrate the roofing material.



*Shown on  
Type NB Roof Hatch*



*Shown on  
Type L Roof Hatch*

## Standard Sizes and Weights:

Roof Hatch		Bil-Guard Hatch Rail System			
Size (width x length)		Bilco Model	Model #	Shipping Weight	
inches	mm			lbs.	kg.
36" x 30"	914 x 762	S	RL-S	52	24
36" x 36"	914 x 914	E	RL-E	52	24
48" x 48"	1219 x 1219	F	RL-F	61	28
30" x 54"	762 x 1372	NB	RL-NB	60	27
30" x 96"	762 x 2438	L	RL-L	76	35



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The Bilco logo is displayed in a stylized, red, outlined font within a white rectangular border. A registered trademark symbol (®) is located at the top right of the logo.

*Since 1926*

# Automatic Fire Vents



Bilco Automatic Fire Vents protect property and aid firefighters by removing smoke, heat and noxious gases from a burning building. Ideally suited for large expanses of unobstructed space, Bilco Automatic Fire Vents guard factories, warehouses, retail stores, auditoriums, convention centers, and other structures where the protection of life and property is critical.



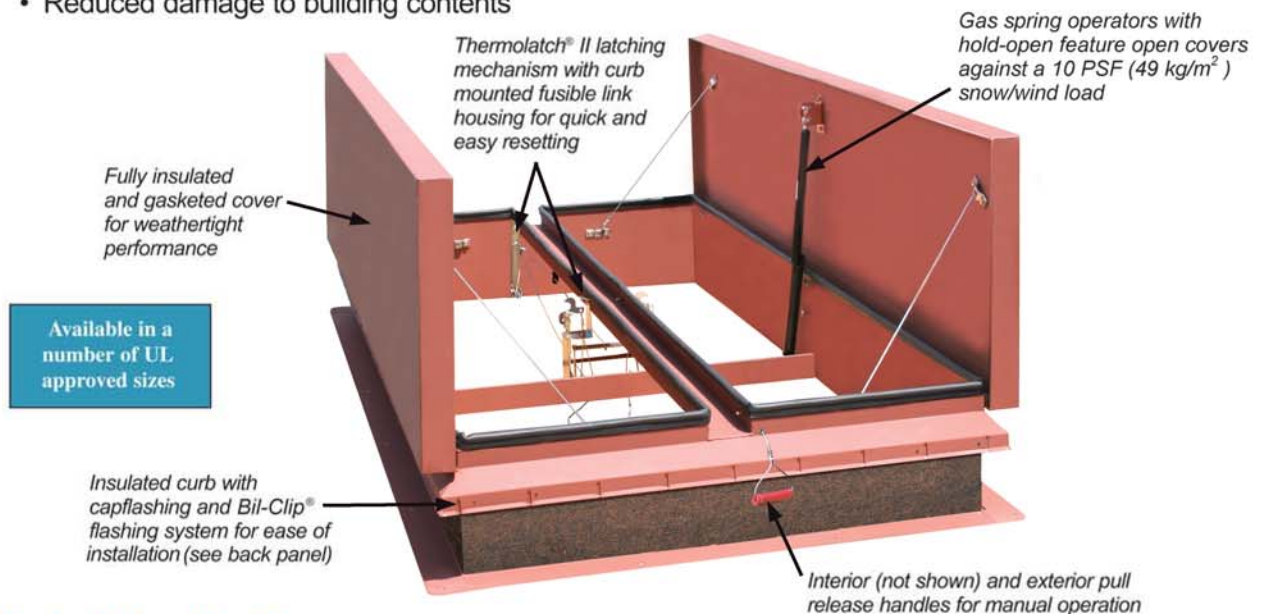
# Automatic Fire Vents



## Advantages of Automatic Fire Vents

Bilco Automatic Fire Vents allow smoke, heat and gases to exit a burning structure to provide:

- Increased evacuation time
- Decreased risk of smoke inhalation and damage
- Enhanced visibility to allow firefighters to quickly locate the fire
- Protection against secondary ignitions and lateral fire spread
- Exhausting of noxious and potentially explosive fumes
- Structure protection from damaging heat
- Reduced damage to building contents



## Typical Applications

- Aircraft Hangars
- Auditoriums
- Concert Halls
- Convention Centers
- Elevator Shafts
- Factories
- Gymnasiums
- Manufacturing Plants
- Pools
- Processing Plants
- Retail Structures
- Schools
- Storage Facilities
- Transit Facilities
- Warehouses
- Other open floor space facilities







## Type DSH

### Double Leaf Fire Vent

Fire protection for virtually all applications.



## The Lumivent<sup>®</sup>

### Double Leaf Translucent Fire Vent

Fire protection with the added benefit of natural lighting.





Tested to:  
**STC-46**



## **Type ACDSH Acoustical Fire Vent**

Specially insulated to guard against outside noise intrusion.



## **Type SV Single Leaf Fire Vent**

Provides protection in small or confined spaces.  
Ideal for use in elevator shafts and stairwells.



Available with built-in louvers  
and expanded metal grid to  
meet elevator shaft code  
requirements.

# Automatic Fire Vents



## Explosion Vent

### Double Leaf Fire Vent

Opens automatically in the event of an internal building explosion



*Release mechanism is preset and factory-tested to release at between 25 lb/ft<sup>2</sup> and 30 lb/ft<sup>2</sup> (122 kg/m<sup>2</sup> and 146 kg/m<sup>2</sup>) of pressure on the underside of the covers.*



\*Note: Explosion vents utilize the special latching mechanism shown above.

Standard on all Bilco Automatic Fire Vents:

## Bilco's Thermolatch® II Positive Hold/Release Mechanism

Automatically releases vent covers upon the melting of a UL-listed 165° (74°C) fusible link. The curb-mounted fusible link housing allows the latch to be quickly and easily reset from the roof level. The Thermolatch® II prevents the covers from being inadvertently opened by wind, building vibrations or other factors. Interior and exterior pull handles are provided for manual operation without disturbing the fusible link.





# Automatic Fire Vents

## Options

Bilco automatic fire vents can be supplied with a number of options to meet your fire protection requirements. In addition to the options below, Bilco's engineering department can also custom design products for your unique applications.

### Fire Alarm Activation

Bilco automatic fire vents can be modified to open upon receiving a signal from a fire alarm control panel. The latching mechanism on these vents is equipped with either an electric operator or an electric thermal link (ETL) that releases the covers instantaneously upon receiving an electric impulse.

### Smoke Detector Activation

Bilco fire vents can be modified to open upon receiving a signal from a smoke detector. These vents utilize the same latching mechanism as vents designed for fire alarm activation and can be supplied with a smoke detector.

### Remote Operation

Bilco automatic fire vents are ruggedly constructed and are designed so that they can be opened on a regular basis. Vents provide a convenient means of ventilating work areas in manufacturing facilities and can also be used over theater stage areas for ventilation during performances. In addition to building ventilation, remote operation from the floor level can be required by some local fire officials for testing purposes.

**Motorized:** Utilizes an electric motor operator and 3-push button control (open/close/stop) to operate the vent covers.



**Winch operation:** Utilizes a manual winch and rigging to operate the vent covers. Pulleys and cable can be supplied by Bilco when specified.

### Optional Activation Temperatures

Bilco automatic fire vents are supplied with a standard 165°F (74°C) fusible link for automatic vent operation. In some cases, higher activation temperatures are required for the vents to be used in conjunction with building sprinkler systems. Alternate fusible link temperatures can be supplied when specified.

### Security Options

The Bilco Company offers a number of fire vent options to prevent unauthorized building entry.

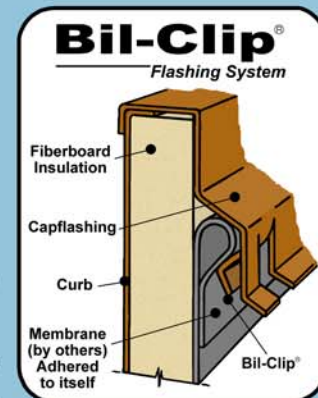
**Security Grilles:** Heavy bars permanently welded in place across the curb opening. Bars are spaced to prevent building access and maximize ventilation area.

**Indicator switches:** Allow vents to be wired into a building's alarm system. Indicator switches are curb mounted and send a signal to the alarm control panel when the vent covers are opened.

**Lockable enclosure:** The exterior manual pull release may be supplied with an enclosure that can be padlocked to prevent unauthorized opening of the covers from the roof level.

## Standard on all Bilco Fire Vents

The Bil-Clip® flashing system provides an innovative method to quickly and easily secure single-ply roofing material to Bilco roof products. Approved by leading single-ply roofing manufacturers, the Bil-Clip® flashing system is a part of the integral curb capflashing on all Bilco fire vents. Installation time and related installation costs are greatly reduced and a more effective mechanical termination — which does not rely on adhesives alone — is provided.



The Bilco Company  
P.O. Box 1203 • New Haven, CT 06505  
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# Bilco®

*Since 1926*

## Roof Scuttles



Bilco Roof Scuttles provide safe and convenient roof access for maintenance and service of HVAC systems and other roof-mounted equipment. Ideally suited for factories, office buildings, warehouses, retail stores, and other structures with flat or minimally sloped roofs. Large sizes are also available for installing or removing equipment from a building.



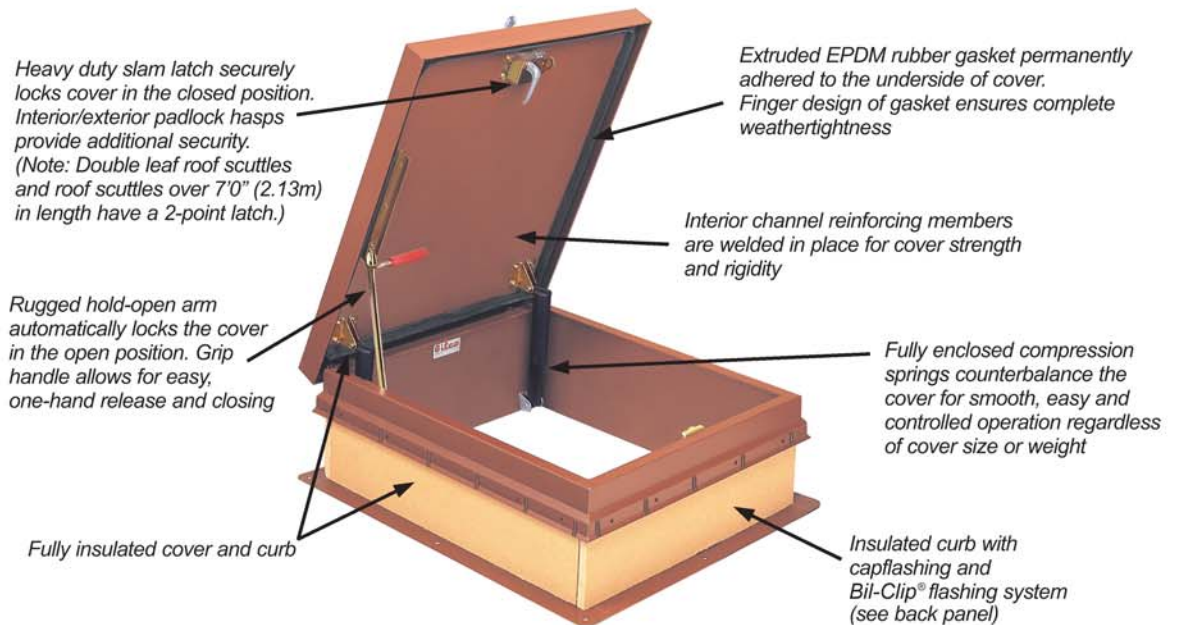
# Roof Scuttles



## Advantages of Roof Scuttles

Bilco Roof Scuttles provide safe and reliable access to roof areas. Standard features and benefits of all Bilco roof scuttles include:

- Weathertight construction
- Lift assistance for smooth, easy, one-hand operation
- Corrosion resistant hardware
- Posi-Flash® Flashing System for ease of installation (see back panel)
- Fully insulated and gasketed for energy efficiency
- Custom designs and sizes are readily available



## Typical Applications

- Banks
- Correctional Facilities
- Factories
- Fast Food Restaurants
- Gymnasiums
- Hospitals
- Hotels
- Multi-Family Residences
- Office Buildings
- Processing Plants
- Schools
- Shopping Centers
- Storage Facilities
- Transit Facilities
- Warehouses



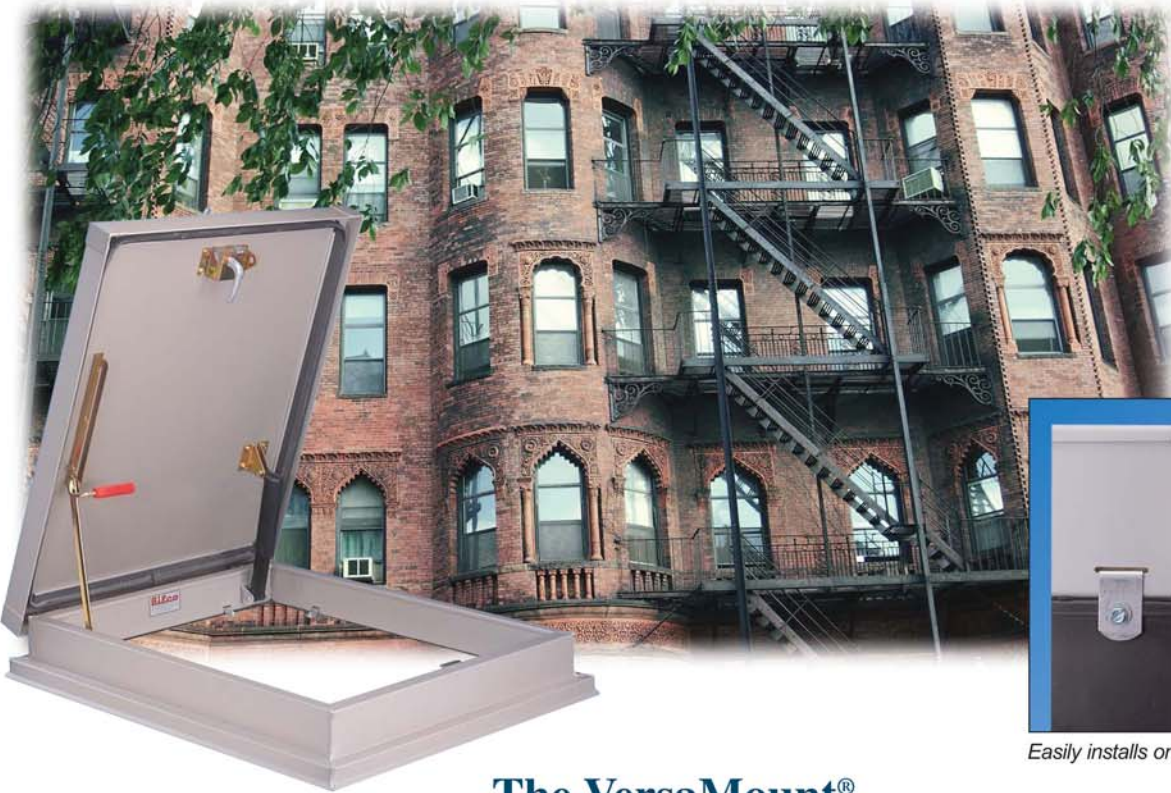




### Type S & Type E

Provides access to roof area by means of a fixed interior ladder.

Type GS available with polycarbonate dome covers to add natural lighting



Easily installs on existing roof curbs

### The VersaMount®

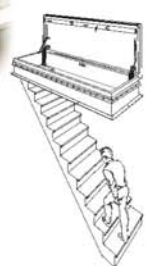
Ideal for retrofit installation on existing applications. Available in sizes for both ladder and staircase access.





## Type NB

Provides access to roof areas by means of a ship stair.

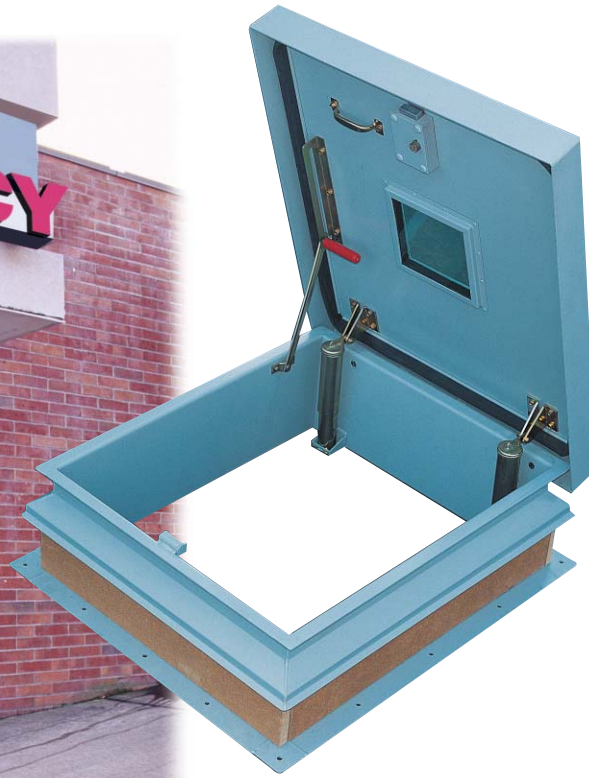


## Type L

Provides access to roof areas by means of a full-sized stairway.



# Roof Scuttles



## Security Series

Provides access to roof areas in high security applications such as banks, pharmacies, and correctional facilities. Available in sizes for both ladder and staircase access.



*Type D Double Leaf*



*Type F Single Leaf*



## Equipment Access

Large openings provide an easily accessible means for equipment to be installed or removed from a building.



*Type D Double Leaf*

# Roof Scuttles

## Lock & Security Options



### Detention Locks

- Provide keyed interior and exterior access and are ideal for correctional facilities and other buildings requiring a maximum level of security

### Keyed Cylinder Locks

- Provide keyed exterior access and keyed or turn knob interior access
- Ideal security enhancement for most applications
- Lock cylinder is accessed from the exterior through a gasketed, threaded deck plate



### Security Glazing

- Allows personnel to visibly scan a secure area before entering or exiting a roof top
- Available in a number of ballistic ratings to suit varying levels of security

## Bil-Guard® Railing System



Designed to satisfy OSHA standard CFR 1910.23 which requires that the exposed sides of roof opening have a form of guardrail protection. Standard self-closing gate ensures continuous fall protection.

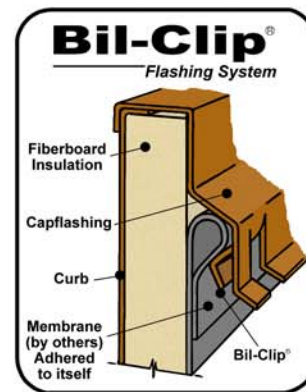
## Ladder-Up® Safety Post



Provides easier, safer access through scuttles that utilize a fixed ladder. Telescoping post provides a positive hand-hold, enabling the ladder user to enter or exit in an upright and balanced position.

## Standard on all Bilco Roof Scuttles

The Bil-Clip® flashing system provides an innovative method to quickly and easily secure single-ply roofing material to Bilco roof products. Approved by leading single-ply roofing manufacturers, the Bil-Clip® flashing system is a part of the integral curb capflashing on all Bilco fire vents. Installation time and related costs are greatly reduced and a more effective mechanical termination — which does not rely on adhesives alone — is provided.



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**THE WORLDWIDE SOURCE FOR  
SPECIALTY ACCESS PRODUCTS**

## Bilco's History

The Bilco Company has served the building industry since 1926. During these years it has built a reputation among architects, engineers, specifiers, and the construction trades for dependability and for products that are unequalled in design and workmanship. Under the same family ownership and management since its beginning, the Company has been a pioneer in the development of the unique line of specialty access products found within this catalog.

## Bilco Today

The Bilco Company continues to be the industry leader in the design and manufacture of specialty access products. In order to better serve its customers, Bilco has added manufacturing facilities and strategic distribution throughout the world, along with establishing an extensive international network of factory-trained representatives. These representatives, combined with Bilco's highly skilled and dedicated personnel, ensure a level of customer service that is unequalled in the industry. As the leader in design innovation, many of Bilco's products incorporate features for which numerous U.S. and international patents have been issued. Years of engineering experience, coupled with manufacturing facilities utilizing the most modern equipment available, allows Bilco to design and fabricate access products for virtually every application.

## Our Commitment



Bilco products are designed and fabricated to consistently high quality standards to ensure complete customer satisfaction. As part of its commitment, Bilco has implemented a quality system, which has achieved ISO 9001 certification. The Bilco Company is committed to producing access products that are unequalled in quality, design and workmanship.



Headquarters – West Haven, Connecticut



Manufacturing – Trumann, Arkansas

## Our Guarantee

Bilco warrants its products against defects in material and workmanship for a period of five years from the date of purchase, unless otherwise indicated in this catalog. Should a part fail to function in normal use within this period, Bilco shall furnish a new part at no charge. Electric motors, special finishes and other special equipment (if applicable) shall be warranted separately by the manufacturers of those products.







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Product details and specifications are readily available by logging onto [www.bilco.com](http://www.bilco.com) and visiting our download center.

### U.S. and International Bilco patents issued and pending...

5,373,665	5,927,012	6,260,305	6,931,793
5,554,433	5,960,596	6,347,818	Other U.S. and
5,565,274	6,041,553	6,672,020	International patents
			issued and pending.



The Bilco Company

P.O. Box 1203, New Haven, CT 06505 • Phone: (800) 366-6530 • Fax (203) 933-8478 • e-mail: [commercial@bilco.com](mailto:commercial@bilco.com)

Web: [www.bilco.com](http://www.bilco.com)

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The Bilco Company reserves the right to make design changes or to withdraw designs and products shown throughout this catalog without notice as we deem advisable.

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Bilco roof hatches provide safe and convenient access to roof areas by means of an interior ladder, ship stair or service stair. A variety of special sizes are also available to provide an accessible way to install or remove large pieces of equipment from a building.

## Typical Applications

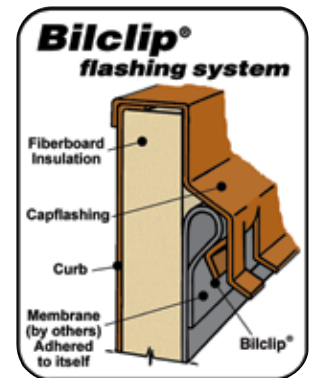
- Banks
- Prisons
- Factories
- Fast Food Restaurants
- Gymnasiums
- Hospitals
- Hotels
- High-Rise Housing
- Office Buildings
- Manufacturing Plants
- Schools
- Shopping Centers
- Storage Facilities
- Distribution Depots
- Warehouses

## Features & Benefits

- Weathertight construction
- Fully insulated and gasketed for energy efficiency
- Lift assistance for smooth, easy, one-hand operation
- Corrosion resistant hardware
- Bilclip® Flashing System for ease of installation
- Custom sizes and options are readily available
- Sizes available with Miami-Dade County and Florida Product Approval



*Look for this logo in roof hatch section for approved sizes*



*Standard on all Bilco roofing products.*







1. Heavy duty slam latch securely locks cover in the closed position. Interior/exterior padlock hasps provide additional security. (Note: Double leaf roof hatches and roof hatches over 7'0" (2.13m) in length have a 2-point latch.)
2. Interior reinforcing members are welded in place for cover strength and rigidity.
3. Rugged hold-open arm automatically locks the cover in the open position. Grip handle allows for easy, one-hand release and closing.
4. Fully insulated cover and curb.
5. Extruded EPDM rubber gasket permanently adhered to the underside of cover. Finger design ensures complete weathertightness.
6. Fully enclosed compression springs counterbalance the cover for smooth, easy and controlled operation regardless of size or weight.
7. All Bilco roof hatches feature prepunched capflashing to receive the Bil-Guard<sup>®</sup> Hatch Rail System (see page 14 for more information).



## Enhanced Performance Roof Hatches



Type S-50T Roof Hatch Shown

### Ideal for Green Building Designs and Applications That Require Higher Energy Efficiency

The new thermally enhanced design features special gasketing and increased insulation for superior thermal performance to improve the energy efficiency of your building.

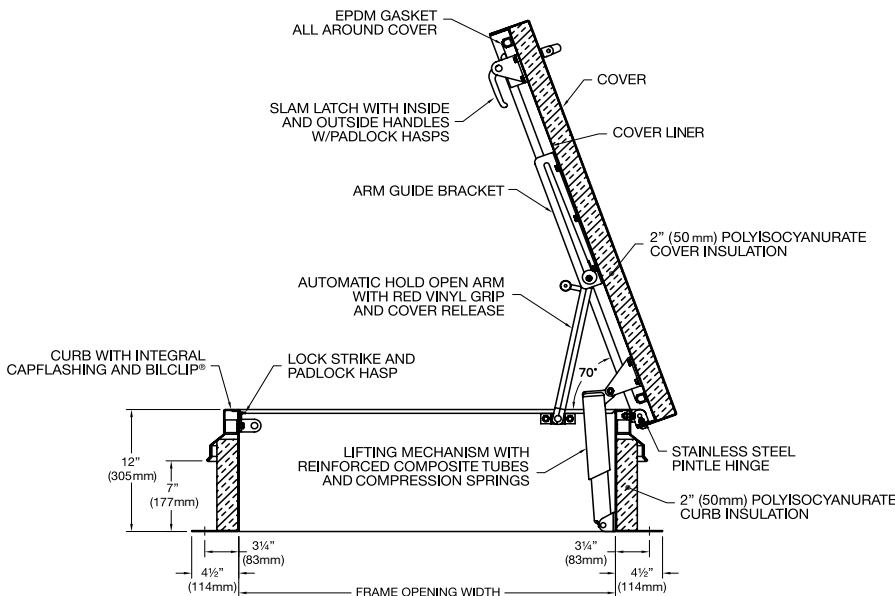


Available in Enhanced Performance Design

Design available on a number of standard roofing products. Look for this leaf logo throughout the catalog.

#### Features & Benefits

- Energy efficiency exceeds standard hatches by more than 48% (R value = 12)
- Meets LEED® standards for recycled content
- High solar reflective index (SRI)
- 2" (50mm) of ozone-friendly polyisocyanurate insulation in cover and curb
- EPDM gasketing with enhanced weather-resistance
- 11 gauge (2.3mm) mill finish aluminum construction



Type S-50T and E-50T detail shown. All other models open to 90°.



Type NB-50T



Type L-50T



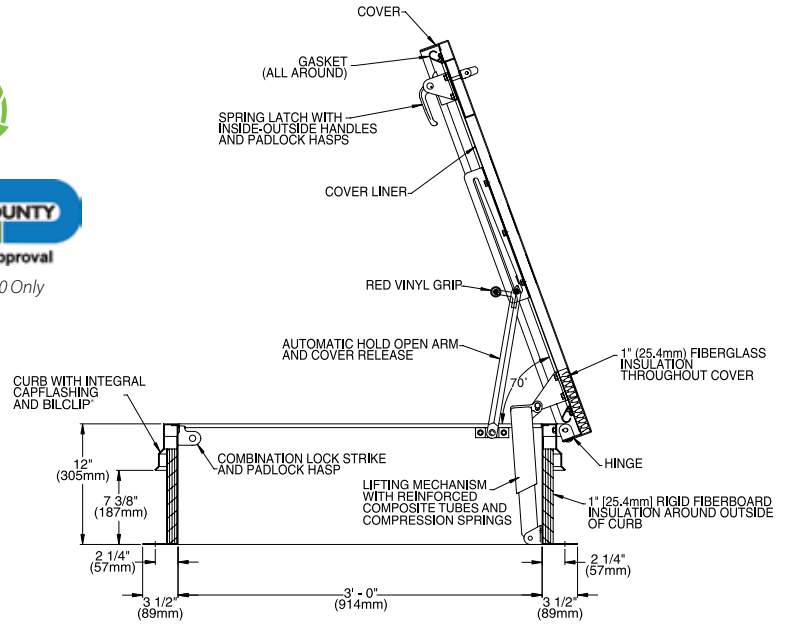
# Type S, Type E Ladder Access



Type S Shown



**MIAMI-DADE COUNTY**  
**APPROVED**  
 Florida Product Approval  
 Type S-20 and S-50 Only



**Description:**

The easy, one-hand operation, to the fully open or closed position, provides the user the security of having one hand firmly on the ladder at all times. Available in galvanized steel, aluminum or stainless steel construction.

**Specifications:**

**Material** (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

**Cover**

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

**Gasket**

Extruded EPDM rubber gasket permanently adhered to cover

**Hinges**

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

**Latch**

Slam latch with interior and exterior turn handles and padlock hasps

**Lift Assistance**

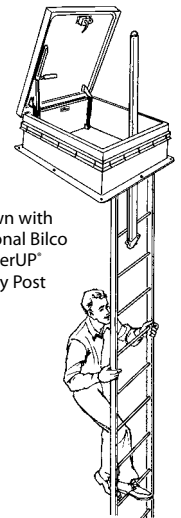
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

**Hardware**

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel



Shown with optional Bilco LadderUP Safety Post



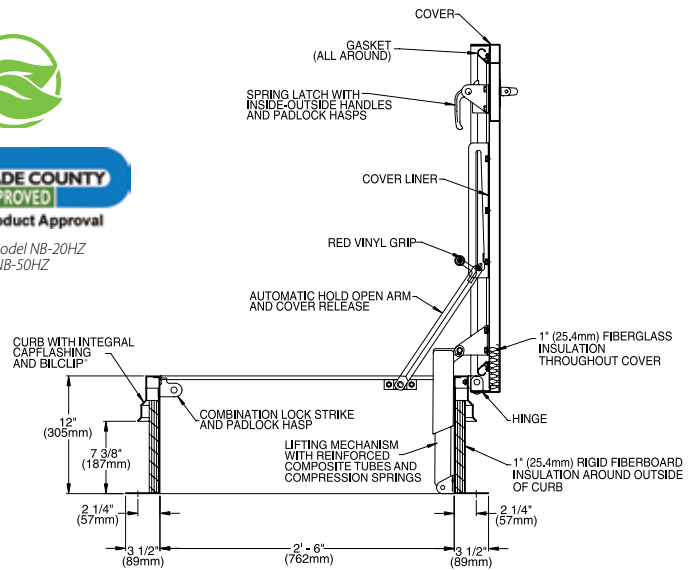
**Standard Sizes and Weights**

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			STAINLESS STEEL		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	S-20	183	83	S-40	150	68	S-50	110	50	S-90*	183	83
36 x 36	914 x 914	E-20	207	94	E-40	184	84	E-50	117	53	E-90*	207	94

\* This model is a special order.



# Type NB Ship Stair Access



**Description:**

Ideal for installations where frequent use may be expected. Permits easier movement of maintenance personnel, tools, and equipment. Available in galvanized steel, aluminum or stainless steel construction.

**Specifications:**

**Material (select one)**

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

**Cover**

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11 mm) provided for securing frame to the roof deck

**Gasket**

Extruded EPDM rubber gasket permanently adhered to cover

**Hinges**

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

**Latch**

Slam latch with interior and exterior turn handles and padlock hasps (specify enclosed two point spring latch with interior and exterior turn handles and padlock hasps for Type NB-20HZ and NB-50HZ Miami-Dade Approved models)

**Lift Assistance**

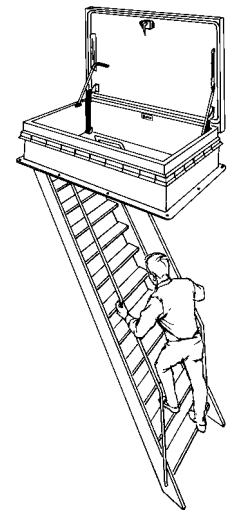
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

**Hardware**

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel

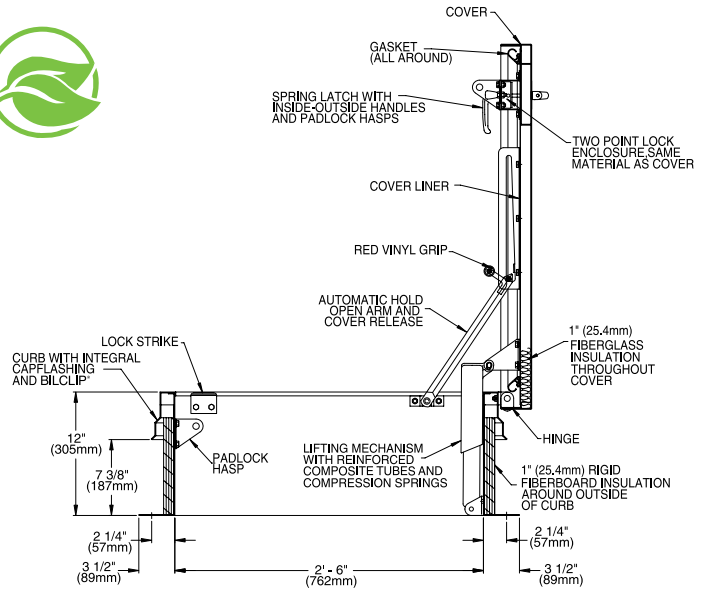


**Standard Sizes and Weights**

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			STAINLESS STEEL		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
30 x 54	762 x 1372	NB-20	239	109	NB-40	190	86	NB-50	139	63	NB-90*	239	109
36 x 54	762 x 1372	NB-20HZ	239	109	Consult Factory			NB-50HZ	139	63	Consult Factory		

\* This model is a special order.

# Type L Service Stair Access



**Description:**

Ideal for installations where frequent use may be expected. Permits easier movement of maintenance personnel, tools and equipment from a full size stairway. Available in galvanized steel, aluminum or stainless steel construction.

**Specifications:**

**Material (select one)**

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

**Cover**

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

**Gasket**

Extruded EPDM rubber gasket permanently adhered to cover

**Hinges**

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

**Latch**

Enclosed two-point spring latch with interior and exterior turn handles and padlock hasps

**Lift Assistance**

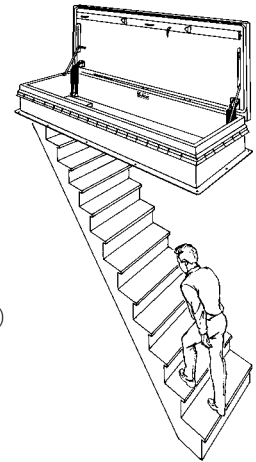
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

**Hardware**

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel

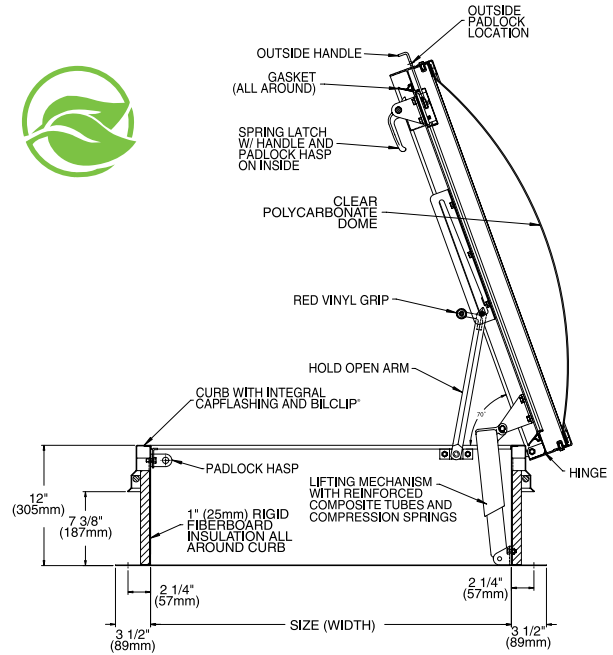


**Standard Sizes and Weights**

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			STAINLESS STEEL		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
30 x 96	762 x 2438	L-20	434	197	L-40	295	134	L-50	253	115	L-90*	434	197

\* This model is a special order.

## Type GS Ladder Access



### Description:

All the security and convenience of the Type S roof hatch with the added benefits of a skylight. GS Roof Hatches feature aluminum construction and virtually indestructible polycarbonate domes.

### Specifications:

#### Material

Cover and frame are 11 gauge (2.3mm) aluminum

#### Cover

Aluminum extrusion with built-in condensation drainage channel and clear polycarbonate dome or double domes

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Extruded EPDM rubber gasket permanently adhered to the cover

#### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Slam latch with interior and exterior padlock hasps

#### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

#### Finish

Mill finish

#### Hardware

Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



Shown with optional Bilco LadderUP Safety Post



### Standard Sizes and Weights

SIZE		ALUMINUM W/ SKYLIGHT					
		SINGLE DOME		DOUBLE DOME			
(width x length)		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	GS-50	115	52	MGS-50	135	61

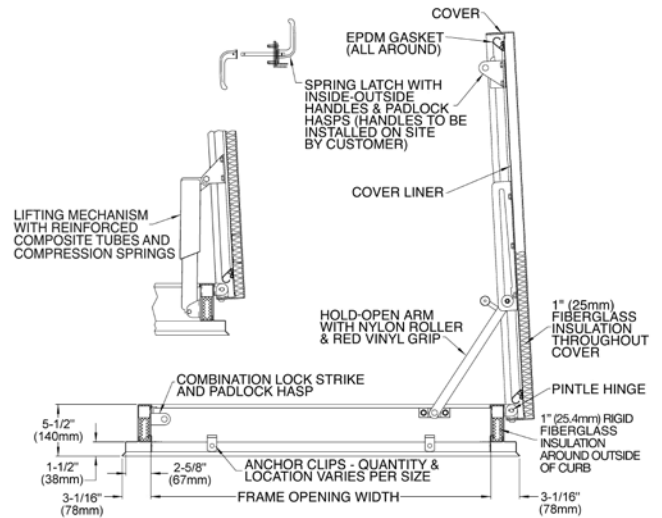




# The VersaMount® Access Hatch



Optional anodized finish shown



## Description:

The VersaMount® replacement hatch allows you to replace a damaged roof hatch without re-roofing. Simply remove the cover from the damaged hatch and place the VersaMount® hatch on top of the existing curb. The low-profile curb features a built-in flange and apron and innovative anchor clip system to ensure a fast, secure and weathertight installation. Available in a number of standard sizes.

## Specifications:

### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel

### Cover

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

### Curb

4" (102mm) in height, brakeformed hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 2-5/8" (67mm) mounting flange and 1-1/2" (38mm) apron, fully welded at corners. Stainless steel anchor clips are included.

### Gasket

Extruded EPDM rubber gasket permanently adhered to the cover

### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

### Latch

Slam latch with interior and exterior turn handles and padlock hasps

### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.
- Stainless Steel: Type 316 stainless steel



Job-Built Wood Curbs



Job-Built Concrete Curbs



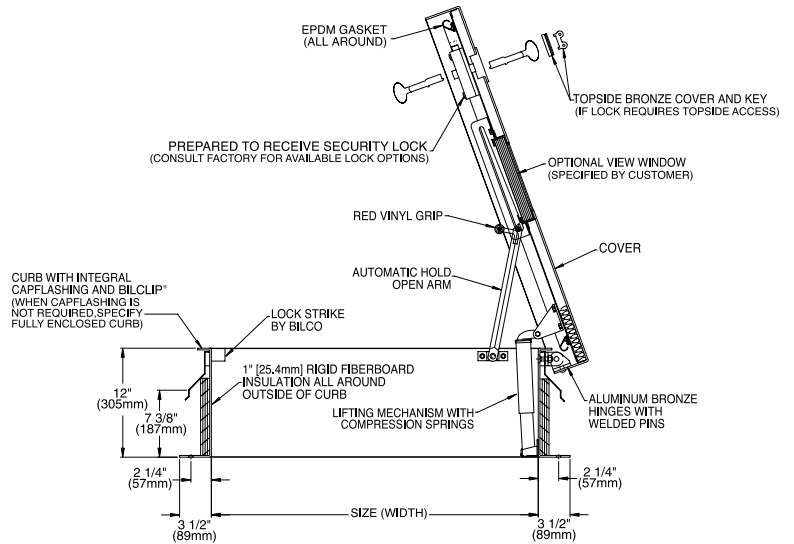
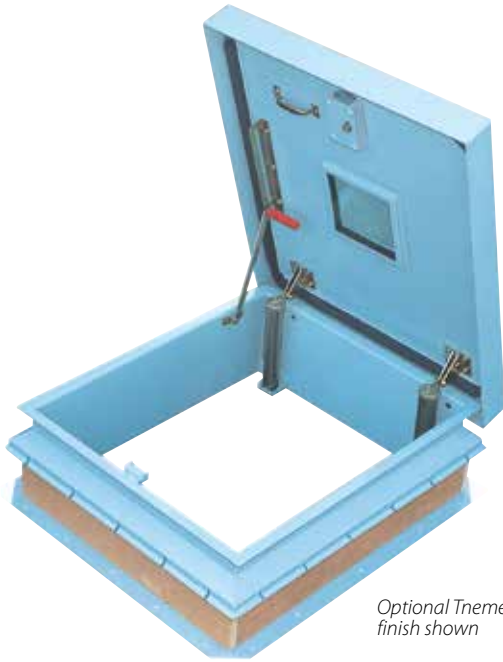
Existing Roof Hatch or Job-Built/Prefab Metal Curbs

## Standard Sizes and Weights

SIZE		STEEL		ALUMINUM		STAINLESS STEEL				
(width x length)		Model #	Weight		Model #	Weight				
inches	mm		lbs.	kg.		lbs.	kg.			
36 x 30	914 x 762	S-20VM	152	70	S-50VM	86	39	S-90VM*	152	70
30 x 54	762 x 1372	NB-20VM	180	82	NB-50VM	100	46	NB-90VM*	180	82
30 x 96	762 x 2438	L-20VM	320	145	L-50VM	178	81	L-90VM*	320	145
1m x 1m		EW-20VM	170	77	EW-50VM	90	41	EW-90VM*	170	77

\*These models are a special order.

## Security Series Access Hatch



### Description:

Constructed of heavier gauge materials for high security applications such as prisons, banks, embassies, and pharmaceutical buildings. Roof hatches can be fabricated for field installation of many leading brands of security locks. Other options include security glazing and gunports. (See page 23 for more information.)

### Specifications:

#### Material (select one)

- Steel: Cover and frame are 3/16" (4.76mm) steel
- Aluminum: Cover and frame are 3/16" (4.76mm) aluminum

#### Cover

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Extruded EPDM rubber gasket permanently adhered to cover

#### Hinges

Heavy-duty aluminum bronze hinges

#### Latch

Factory prepared to receive a deadbolt detention lock (specify manufacturer and model #), supplied and installed by others in the field. Consult factory if an alternate lock is required.

#### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

#### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish

#### Hardware

Steel compression springs and type 316 stainless steel spring tubes. All other hardware is zinc plated/chromate sealed.

### Standard Sizes and Weights

SIZE		STEEL				ALUMINUM			
(width x length)		Model #	Weight		Open Angle	Model #	Weight		Open Angle
inches	mm		lbs.	kg.			lbs.	kg.	
36 x 30	914 x 762	S-20C	386	175	70°	S-50C	150	68	70°
36 x 36	914 x 914	E-20C	400	181	70°	E-50C	176	80	70°
30 x 54	762 x 1372	NB-20C	475	215	90°	NB-50C	210	95	90°



# Type F, Type SS, Type D Equipment Access

## Description:

The larger opening provides an easily accessible means for equipment to be installed or removed from a building. Equipment access roof hatches are available in steel, aluminum and stainless steel construction and in one standard single leaf size [Type F, 48" x 48" (1219mm x 1219mm)]. Special single leaf sizes (Type SS) are available and are recommended for widths up to 5'0" (1524mm). For larger openings, specify double leaf construction (Type D). For best operation, specify aluminum construction for single leaf hatches over 3'0" (914mm) wide and double leaf hatches over 7'0" (2134mm) in width.

## Specifications:

### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum
- Stainless Steel: Cover and frame are 14 gauge (1.9mm) Type 304 stainless steel



### Cover

Braqueformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

### Gasket

Extruded EPDM rubber gasket permanently adhered to cover

### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

### Latch

- Single leaf: Slam latch with interior and exterior turn handles and padlock hasps [units 7'0" (2133.6mm) in length and over shall be supplied with a two point lock]
- Double leaf: Enclosed two-point spring latch with interior and exterior turn handles and padlock hasps

### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish
- Stainless Steel: Type 304 stainless steel with bead blast finish

### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges.
- Stainless Steel: All other hardware is zinc plated/chromate sealed.

## Standard Sizes and Weights

SIZE		STEEL CURB& ALUMINUM COVER		ALUMINUM			
(width x length)		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.
48 x 48	1219 x 1219	F-40	275	125	F-50	218	99

## Special Sizes

Type SS - Single Leaf  
Type D - Double Leaf  
Contact Bilco for more information



Type D Double Leaf Roof Hatch Shown



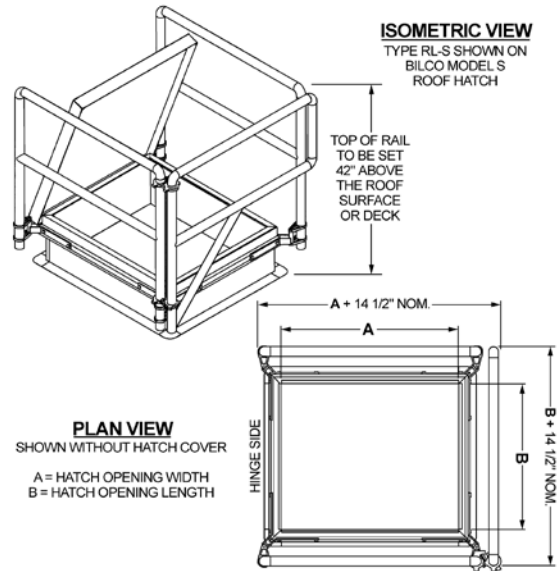
Type F Single Leaf Roof Hatch Shown



# Bil-Guard® Hatch Rail System



Patented



## Bil-Guard® Hatch Rail System

### Standard Features and Benefits

- High visibility safety yellow color
- Non-penetrating attachment
- Standard self-closing gate with automatic latching mechanism
- Available in a variety of sizes
- Corrosion resistant construction carrying a 25-year warranty
- Fits all roof hatch brands with capflashing
- Can be easily installed on new or existing hatches and smoke vents
- Designed to withstand a 200 lb. (90 kg) force

### Specifications:

Posts and rails are pultruded from a fire retardant, fiberglass-reinforced polymer (FRP). FRP material has a molded-in, high visibility, safety yellow color and is treated with a UV inhibitor. Mounting brackets are fabricated from 1/4" (6.35mm) thick hot dip galvanized steel. Gate hinges and post guides are constructed of 6063-T5 aluminum and torsion rod is Type 302 stainless steel. All fasteners are Type 316 stainless steel. Hatch rail system satisfies the requirements of OSHA 29 CFR 1910.23 and meets OSHA strength requirements. Manufacturer shall provide a 25-year warranty against defects in material and workmanship.

Bil-Guard® is a fixed railing system that provides a permanent means of fall protection for hatch openings. Tested and proven to meet and exceed OSHA fall protection standards (29 CFR 1910.23), Bil-Guard® features an innovative attachment system that does not penetrate the roofing membrane, installs quickly and easily using basic tools, and does not require special training or certification for proper installation.

### Standard Sizes and Weights

Special sizes available. Contact Bilco for more information.

ROOF HATCH		BIL-GUARD HATCH RAIL SYSTEM			
Size (width x length)		Bilco Model	Model #	Shipping Weight	
inches	mm			lbs.	kg.
36 x 30	914 x 762	S	RL-S	52	24
36 x 36	914 x 914	E	RL-E	52	24
48 x 48	1219 x 1219	F	RL-F	61	28
30 x 54	762 x 1372	NB	RL-NB	60	27
30 x 96	762 x 2438	L	RL-L	76	35



**Self-Closing Gate Hinge**  
Ensures continuous protection



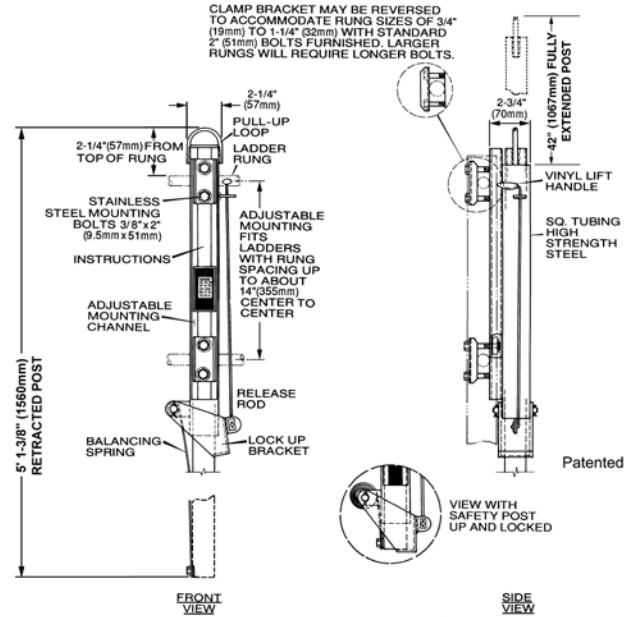
**Pivoting Mounting Sleeve**  
For installation flexibility



**Gate Latch**  
Locks gate in closed position



# LadderUP® Safety Post



LadderUP® Safety Posts provide easier, safer ladder access through roof hatches, floor access doors and manholes. This telescoping post permanently mounts to the top two rungs of any fixed ladder, providing a positive hand-hold and enabling the user to enter or exit an opening in an upright and balanced position.

## Standard Features and Benefits

- Adjustable mounting hardware accommodates virtually any ladder rung size or spacing
- Telescoping design is spring balanced for ease of operation
- Automatically locks in the fully raised position to provide the user with a firm and steady hand-hold
- Handy release lever allows the post to be easily lowered to its retracted position
- Available in four levels of corrosion resistance to provide many years of trouble free, dependable service

## Specifications:

Install on fixed ladder(s) below hatch cover(s), LadderUP® safety post Model \_\_\_ as manufactured by The Bilco Company. Device shall be (refer to chart for material/finish of model specified). It shall be designed with a telescoping tubular section that locks automatically when fully extended. Upward and downward movement shall be controlled by a stainless steel spring balancing mechanism. Unit shall be completely assembled with fasteners for securing to the ladder rungs in accordance with the manufacturer's instructions. If installation is to be in corrosive atmosphere, specify Model LU-2, LU-3 or LU-4 as conditions warrant.

## Standard Sizes and Weights

Model	Material/Finish	Weight	
		lbs.	kg.
LU-1*	Steel, yellow powder coat	24	11
LU-2	Steel, hot dip galvanized	24	11
LU-3	Type 304 Stainless Steel, sand blast finish	24	11
LU-4	Aluminum, mill finish	14	7

\*LU-1 can be supplied with a black powder coat finish on request.



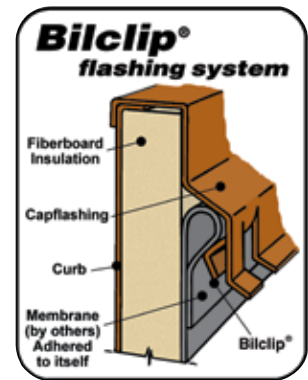
Automatic Smoke Vents protect property and aid firefighters in bringing a fire under control by removing smoke, heat, and gases from a burning building. Smoke vents are ideally suited for large expanses of unobstructed space such as factories, warehouses, auditoriums, and retail facilities.

## Typical Applications

- Aircraft Hangars
- Auditoriums
- Concert Halls
- Convention Centers
- Elevator Shafts
- Factories
- Gymnasiums
- Manufacturing Plants
- Pools
- Processing Plants
- Retail Structures
- Schools
- Storage Facilities
- Transit Facilities
- Warehouses
- Other open floor space facilities

## Features & Benefits

- Increased evacuation time and decreased risk of smoke inhalation and damage
- Enhanced visibility to allow firefighters to quickly locate the fire
- Protection against secondary ignitions and lateral fire spread
- Exhausting of noxious and potentially explosive fumes
- Structure protection from damaging heat
- Reduce damage to building contents
- Available in a number of UL approved sizes
- Bilclip® Flashing System for ease of installation

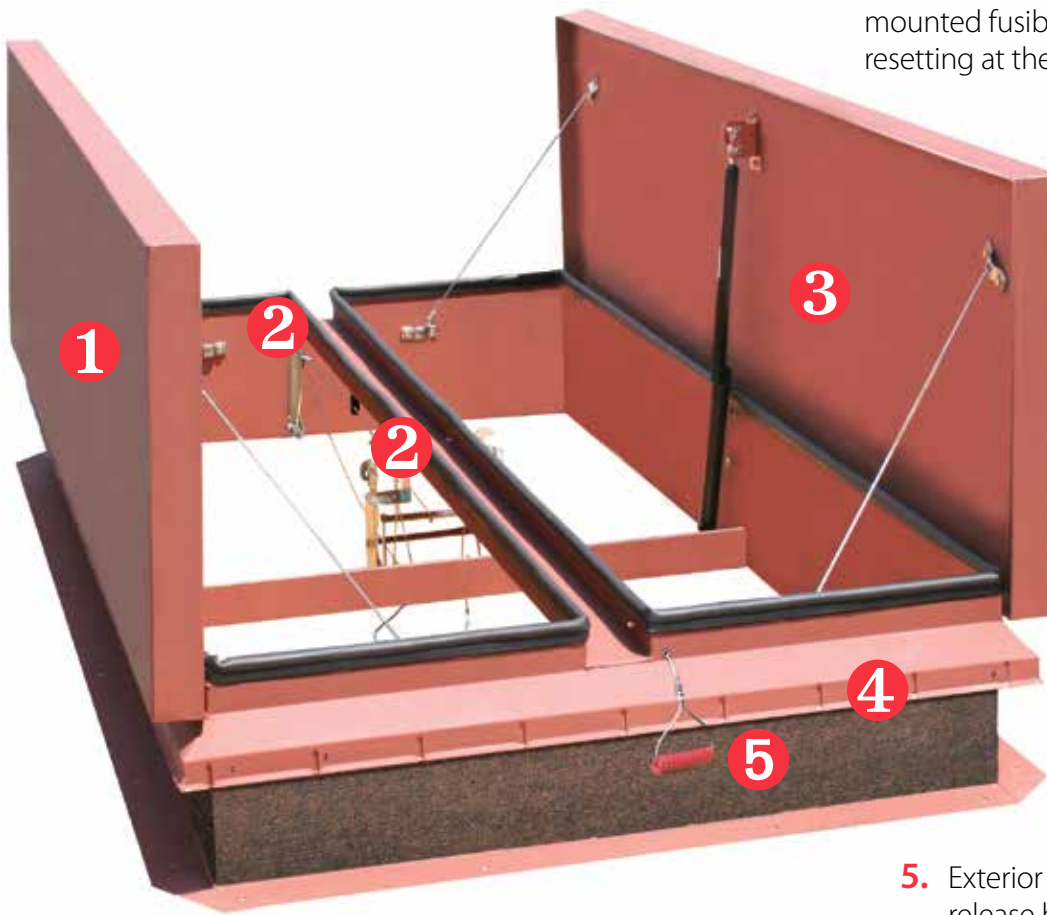


Standard on all Bilco roofing products.





1. Fully insulated and gasketed covers for weathertight performance.
2. Thermolatch® II latching mechanism with curb mounted fusible link housing for quick and easy resetting at the roof level.



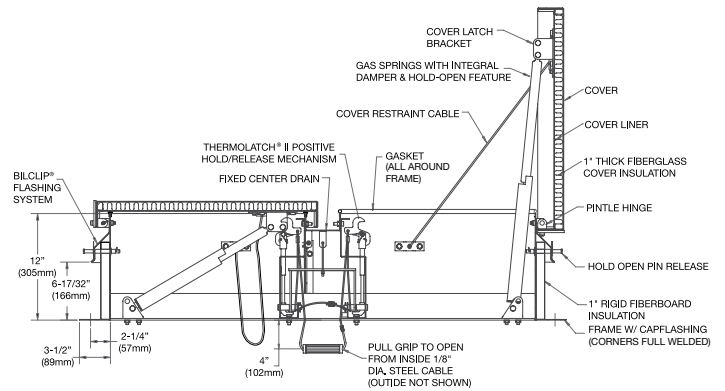
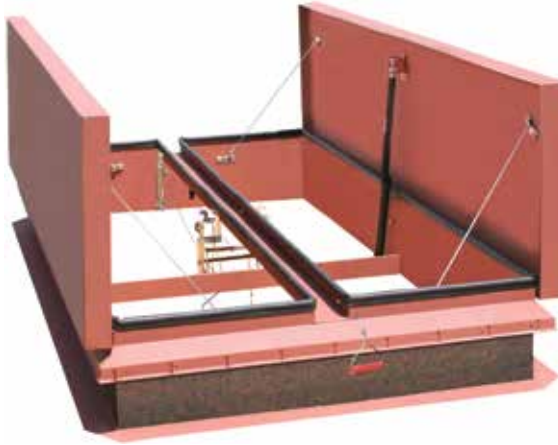
3. Gas springs open covers against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load and integral dampers ensure a controlled rate of operation. Covers automatically lock in the open position upon vent activation. (Note: Single leaf models are supplied with compression spring operators and shock absorbers.)

4. All Bilco roof products feature pre-punched capflashing to receive the Bil-Guard® Hatch Rail System (see page 14 for more information).

5. Exterior and interior (not shown) pull release handles for manual operation.



# Type DSH Double Leaf



**Description:**

DSH series smoke vents are available in a number of standard UL-listed sizes. Features include fully insulated covers and galvanized steel or aluminum construction.



**Specifications:**

**Material (select one)**

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum

**Operation**

When released, high-performance gas springs open covers against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load and lock covers in the full open position. Gas springs have integral dampers to assure a controlled rate of cover opening and have a cyclic durability of 50,000 cycles.

**Covers**

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck



Shown with optional railing system

**Gasket**

Dual durometer, co-extruded, EPDM rubber gasket mechanically fastened to the top of the curb

**Hardware**

Gas springs have a chrome plated inner rod and powder coated outer tube. All other hardware is zinc plated/chromate sealed or galvanized. Note: models with aluminum covers have type 316 stainless steel hinges.

**Hinges**

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

**Latch**

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link with a separate latching point for each cover. Designed to hold the covers closed against a 90 psf (438 kg/m<sup>2</sup>) wind uplift force. Provided with interior and exterior pull release cables to manually open vent covers.

**Performance Ratings**

UL-listed. Complies with UL 793 and UL 790 Class A (burning brand test).

**Finish**

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish

**Standard Sizes and Weights** Contact Bilco for special size requirements

SIZE		STEEL			STEEL CURB & ALUMINUM COVERS			ALUMINUM		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.
48 x 48	1219 x 1219	DSH4848	367	166	DSH4848A	315	143	DSH4848B	260	118
48 x 72	1219 x 1829	DSH4872	455	206	DSH4872A	390	177	DSH4872B	320	145
48 x 90	1219 x 2286	DSH4890	544	247	DSH4890A	460	209	DSH4890B	380	172
48 x 96	1219 x 2438	DSH4896	617	280	DSH4896A	485	220	DSH4896B	390	177
60 x 60	1524 x 1524	DSH6060	695	315	DSH6060A	445	202	DSH6060B	330	150
60 x 72	1524 x 1829	DSH6072	735	333	DSH6072A	480	218	DSH6072B	380	172
60 x 84	1524 x 2134	DSH6084	835	379	DSH6084A	565	256	DSH6084B	420	191
60 x 96	1524 x 2438	DSH6096	860	390	DSH6096A	585	265	DSH6096B	425	193
60 x 120	1542 x 3048	DSH60120	1047	475	DSH60120A <sup>†</sup>	710	322	DSH60120B <sup>†</sup>	530	240
66 x 66	1676 x 1676	DSH6666	650	295	DSH6666A	455	206	DSH6666B	395	179
66 x 144	1676 x 3658	DSH66144*	1530	694	DSH66144A*	1060	481	DSH66144B*	790	358
72 x 72	1829 x 1829	DSH7272	790	358	DSH7272A	555	252	DSH7272B	415	188

<sup>†</sup> This size has 2" thick covers with 2" of insulation. \* This size has four covers.



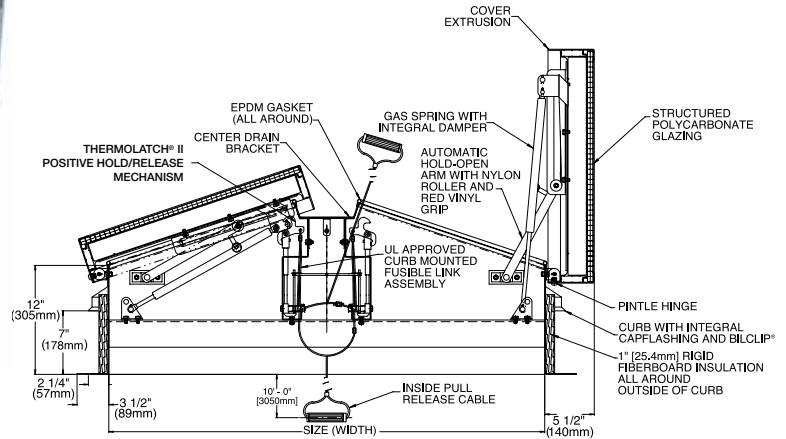
# The Lumivent® Double Leaf – Daylighting

## Sloped Cover Design

Meets International Building Code Requirements (2012 IBC 2610.3)



Optional  
anodized  
finish shown



### Description:

All the security and value of an automatic smoke vent with the added benefits of a skylight.

### Specifications:

#### Material

Cover and frame are 11 gauge (2.3mm) aluminum

#### Covers

Constructed with a translucent multi-wall polycarbonate sheet\* coated for UV resistance with rigid extruded aluminum frame. Glazing shall withstand a 40 psf (195 kg/m<sup>2</sup>) live load and provide an R-factor of 2.38 per ASTM D236.

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Dual durometer, co-extruded, EPDM rubber gasket mechanically fastened to the top of the curb

#### Hinges

Heavy-duty stainless steel pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link with a separate latching point for each cover. Designed to hold the covers closed against a 90 psf (438 kg/m<sup>2</sup>) wind uplift force. Provided with interior and exterior pull release cables to manually open vent covers.

#### Operation

High performance gas springs open covers automatically against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load when released. Gas springs have integral dampers to assure a controlled rate of cover opening and have a cyclic durability of 50,000 cycles. Automatic hold-open arms lock each cover in the full open position.

#### Performance Ratings

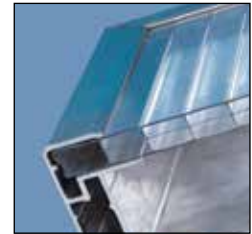
UL-listed. Covers with 4:12 slope to comply with International Building Code Requirements (2012 IBC 2610.3)

#### Finish

Mill finish

#### Hardware

Gas springs have a powder coated outer tube and chrome plated inner rod. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



Features a multi-wall polycarbonate cover design that resists UV degradation and offers superior insulation performance compared to traditional domes



### Standard Sizes and Weights

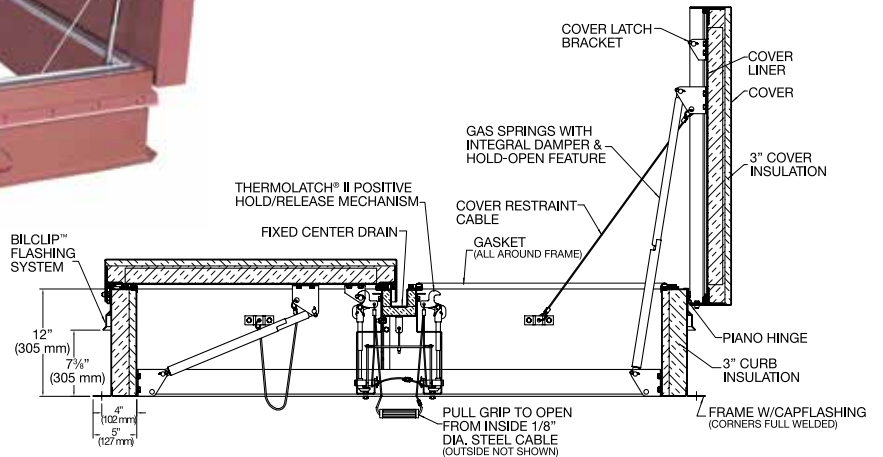
SIZE		STEEL		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
48 x 48	1219 x 1219	LV4848B	226	103
48 x 72	1219 x 1829	LV4872B	296	134
48 x 96	1219 x 2438	LV4896B	366	166
60 x 60	1524 x 1524	LV6060B	308	140
60 x 96	1524 x 2438	LV6096B	388	176
66 x 144	1676 x 3658	LV66144B†	722	328

\*The Bilco Lumivent smoke vent was designed and tested to meet the requirements of UL 793. As part of this testing procedure, UL 793 requires that the polycarbonate covers be subjected to a 400 ft. lb. test and remain intact to meet the OSHA fall protection standard CFR 1910.23. The Bilco Lumivent smoke vent meets or exceeds these requirements.

† This size has four covers.



# Type ACDSH Double Leaf – Acoustical



**STC-46 SOUND RATING**  
THE HIGHEST RATING ON THE MARKET

**Description:**

Available in a number of standard UL-listed sizes, these vents are designed to guard against noise intrusion and at the same time provide the security of dependable automatic venting in the event of a fire. Vents carry an STC-46 sound rating and are ideal for concert halls, theaters, casinos, and other interior applications that require limited noise from the outside.

**Specifications:**

**Material**

Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel

**Covers**

Brakeformed, hollow-metal design with 3" (76 mm) concealed fiberglass insulation, 5" (127 mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

**Curb**

12" (305mm) in height with integral capflashing and 3" (76 mm) fiberglass insulation that is fully enclosed by a 14 gauge (1.9 mm) G-90 paint bond galvanized steel liner. Curb has fully welded corners and a 5" (127 mm) mounting flange with 7/16" holes (11 mm) provided for securing to the roof deck.

**Gasket**

Extruded PVC gaskets permanently adhered to underside of the covers and top of curb

**Hinges**

Heavy-duty zinc plated piano hinges with 1/4" (6 mm) hinge pins

**Latch**

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link with a separate latching point for each cover. Designed to hold the covers closed against a 90 psf (438 kg/m<sup>2</sup>) uplift force. Interior and exterior pull release cables provided for manual vent operation.

**Operation**

Corrosion resistant gas springs open covers automatically against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load when released. Gas springs have built in dampers to assure a controlled rate of opening and automatically lock the covers in the full open position.

**Performance Ratings**

UL listed. STC-46 sound rating. Complies with UL 790 Class A (burning brand test)

**Finish**

Alkyd base red oxide primer

**Hardware**

Corrosion-resistant gas springs and hot dip galvanized steel stop cables. All other hardware is zinc plated/chromate sealed



**Standard Sizes and Weights**

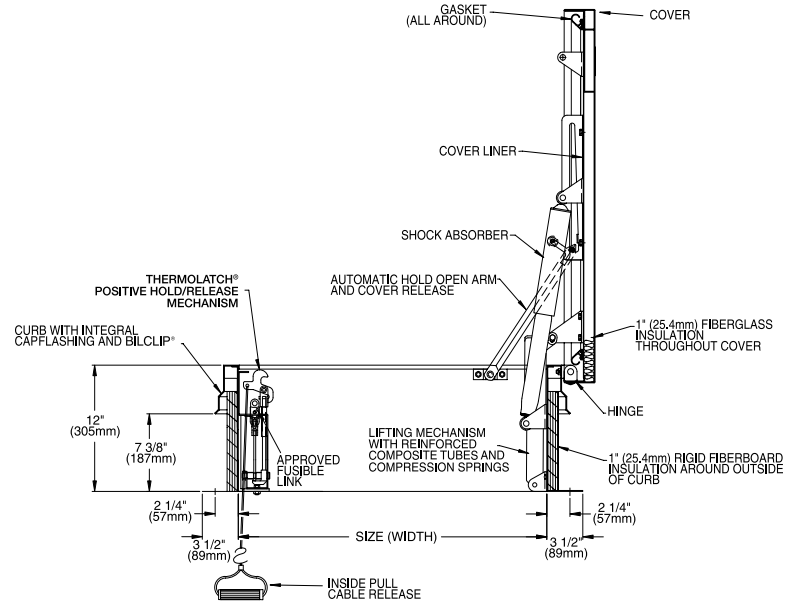
Contact Bilco for special size requirements

SIZE		STEEL		
(width x length)		Model #	Shipping Weight	
inches	mm		lbs.	kg.
48 x 48	1219 x 1219	ACDSH4848	650	295
48 x 60	1219 x 1524	ACDSH4860	755	343
48 x 72	1219 x 1829	ACDSH4872	845	383
48 x 90	1219 x 2286	ACDSH4890	985	447
48 x 96	1219 x 2438	ACDSH4896	1045	474
60 x 60	1524 x 1524	ACDSH6060	870	395
60 x 96	1524 x 2438	ACDSH6096	1120	508
60 x 120	1524 x 3048	ACDSH60120*	1550	703
66 x 144	1676 x 3658	ACDSH66144*	1650	749
72 x 72	1829 x 1829	ACDSH7272	1050	476

\* This size has four covers.



# Type SV Single Leaf



### Description:

For applications requiring smaller vents, single leaf models are available in galvanized steel or aluminum construction and can be provided with polycarbonate domes for added daylight.

### Specifications:

#### Material (select one)

- Steel: Cover and frame are 14 gauge (1.9mm) G-90 paint bond galvanized steel
- Aluminum: Cover and frame are 11 gauge (2.3mm) aluminum

#### Cover

Brakeformed, hollow-metal design with 1" (25.4mm) concealed fiberglass insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load

#### Curb

12" (305mm) in height with integral capflashing, 1" (25.4mm) fiberboard insulation, fully welded at corners, and 3-1/2" (89mm) mounting flange with 7/16" holes (11mm) provided for securing frame to the roof deck

#### Gasket

Extruded EPDM rubber gasket permanently adhered to the cover

#### Hinges

Heavy-duty pintle hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Positive hold/release mechanism controlled by a single UL-listed 165°F (74°C) fusible link. Designed to hold the cover closed against a 90 psf (438 kg/m<sup>2</sup>) uplift force. Provided with interior and exterior pull release cables to manually open vent cover.

#### Operation

Compression springs enclosed in telescopic tubes open covers automatically against a 10 psf (49 kg/m<sup>2</sup>) snow/wind load when released. Automatic hold-open arms lock the cover in the full open position. Cover is supplied with a shock absorber to assure a controlled rate of opening.

#### Performance Rating

Complies with UL 790 Class A (burning brand test)

#### Finish

- Steel: Alkyd base red oxide primer
- Aluminum: Mill finish

#### Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs. All other hardware is zinc plated/chromate sealed.
- Aluminum: Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



### Standard Sizes and Weights **Contact Bilco for special size requirements**

SIZE		STEEL			STEEL CURB & ALUMINUM COVER			ALUMINUM			ALUMINUM WITH POLYCARBONATE DOME		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	S-20SV	193	88	S-40SV	160	73	S-50SV	112	51	GS-50SV	170	78
30 x 54	762 x 1372	NB-20SV	260	118	NB-40SV	215	98	NB-50SV	155	70	Consult Factory		
30 x 96	762 x 2438	L-20SV	423	192	L-40SV	315	143	L-50SV	240	109	Consult Factory		

# Roof Access Hatches/Automatic Smoke Vents

## Common Options

### Stainless Steel Hardware

For installation in highly corrosive environments, Bilco smoke vents and roof hatches may be equipped with Type 316 stainless steel hardware, including: slam latch and lifting mechanism assemblies; hold-open arms and guides; and all brackets, hinges, pins, and fasteners.



*Stainless Steel Hardware*

### Curb Options

All Bilco roofing products may be specified with either a curb liner (metal insulation liner of the same materials as the curb and capflashing) or a fully enclosed curb (full metal insulation liner of the same materials as the curb, which replaces the capflashing). Built-in louvers are available for roof hatches and for automatic smoke vents to meet elevator-shaft code requirements. Base flanges can be supplied with configurations for most brands of metal building roof panels. This option offers simplified installation, and includes a built-in self-drainage feature that eliminates water accumulation on the up-slope side.



*Built-in Louvers*



*Curb Modification for Metal Buildings*

### Insulation

Bilco offers insulation options to enhance the energy efficiency of its roofing products. Standard roof products are supplied with standard 1" (25mm) fiberglass insulation in the covers and 1" (25mm) fiberboard insulation in the curb. When specified, products can be supplied with up to 2" (50mm) of Styrofoam or Polyisocyanurate insulation in the cover and curb.

### Special Finishes

Standard roof products are supplied in mill finish aluminum or galvanized steel with a red oxide primer finish. When specified, custom finishes can be supplied on Bilco roofing products. Common options include Kynar® or Tnemec® paint finishes and anodized aluminum.

### Motorized or Winch Operation

To provide a convenient means of ventilating work areas, automatic smoke vents can be equipped with motor operators for actuation by remote push-button control or other electrical signal. They can also be furnished with rigging for manual winch operation at the floor level. Roof hatches can also be designed for motor or winch operation.



*Motorized Operation*



*Winch Operation*

### Other Options

In addition to standard options, Bilco's custom engineering capabilities can provide you with the exact roof product to meet your unique requirements.





# Roof Hatch

## Security

All Bilco roof hatches are supplied with a standard slam lock that includes an interior and exterior padlock hasp to prevent unauthorized access. Bilco also offers the options listed below for enhanced building security.

## Keyed Cylinder Locks

Deadbolt cylinder locks provide keyed exterior access and are available with either keyed or turn knob interior access. Cylinder locks are an ideal security enhancement for many applications. For added security and weathertightness, the lock cylinder is accessed from the exterior through a gasketed, threaded deck plate.



Keyed Cylinder Locks

## Detention Locks

Detention locks provide keyed interior and exterior access and are ideal for correctional facilities and other buildings requiring a maximum level of security. For added security and weathertightness, the lock is accessed from the exterior through a gasketed, threaded deck plate. Bilco roof hatches can be prepared for field installation of many leading lock brands.



Detention Locks

## Emergency Egress Lock

Bilco roof hatches can be supplied with a panic lock for rapid egress in an emergency situation. Panic locks are available with keyed exterior access when specified.

## Indicator Switches

Allow roof hatches to be wired into a building's alarm system. Indicator switches are curb mounted and send a signal to the alarm control panel when the hatch cover is opened.

## Security Glazing

Security glazing allows personnel to visibly scan a secure area before entering or exiting a roof area. Glazing is available in a number of ballistic ratings with varying levels of security.



Security Glazing

# Automatic Smoke Vent

## Electric Activation

Automatic smoke vents can be supplied with an electric Thermolatch® to allow the vents to be operated by a smoke detector or fire alarm control panel. In addition to electric activation, these vents feature fusible link activation and provisions for manual operation. Electric latches can be supplied for 115 VAC, 24 VAC, 220 VAC, and 24V DC power requirements.



Explosion Vents

## Explosion Vents

Bilco automatic smoke vents may also be equipped to operate as explosion vents or as combination fire/explosion vents. The explosion release mechanism is preset and factory-tested to release at between 25 lb/ft<sup>2</sup> and 30 lb/ft<sup>2</sup> (122 kg/m<sup>2</sup> and 146 kg/m<sup>2</sup>) of pressure on the underside of the covers.

## Security Grilles

Heavy bars permanently welded in place across the curb opening. Bars are spaced to prevent building access and maximize ventilation area.

## Indicator Switches

Allow vents to be wired into a building's alarm system. Indicator switches are curb mounted and send a signal to the alarm control panel when the vent covers are opened.

## Lockable Enclosure

The exterior manual pull release may be supplied with an enclosure that can be padlocked to prevent unauthorized opening of the covers from the roof level.

Floor access doors provide reliable access to equipment stored underground or below/between building floors. Models include drainage doors, non-drainage doors, doors designed to receive flooring materials, doors for interior building applications, and fire-rated floor doors, as well as a number of special application doors.

## Typical Applications

- Airports
- Correctional Facilities
- Electric Utilities
- Factories
- Hospitals
- Manufacturing Facilities
- Natural Gas Utilities
- Office Buildings
- Processing Plants
- Retail Structures
- Schools
- Telecommunications Vaults
- Transit Systems
- Warehouses
- Water/Waste Treatment Plants

## Features & Benefits

- Constructed with corrosion-resistant materials and hardware for harsh environments
- Lift assistance for smooth, easy, one-hand operation
- Covers available with pedestrian or vehicular load reinforcing
- Rugged welded construction is designed for many years of trouble-free service
- Offered in aluminum or steel construction with custom sizes and options readily available

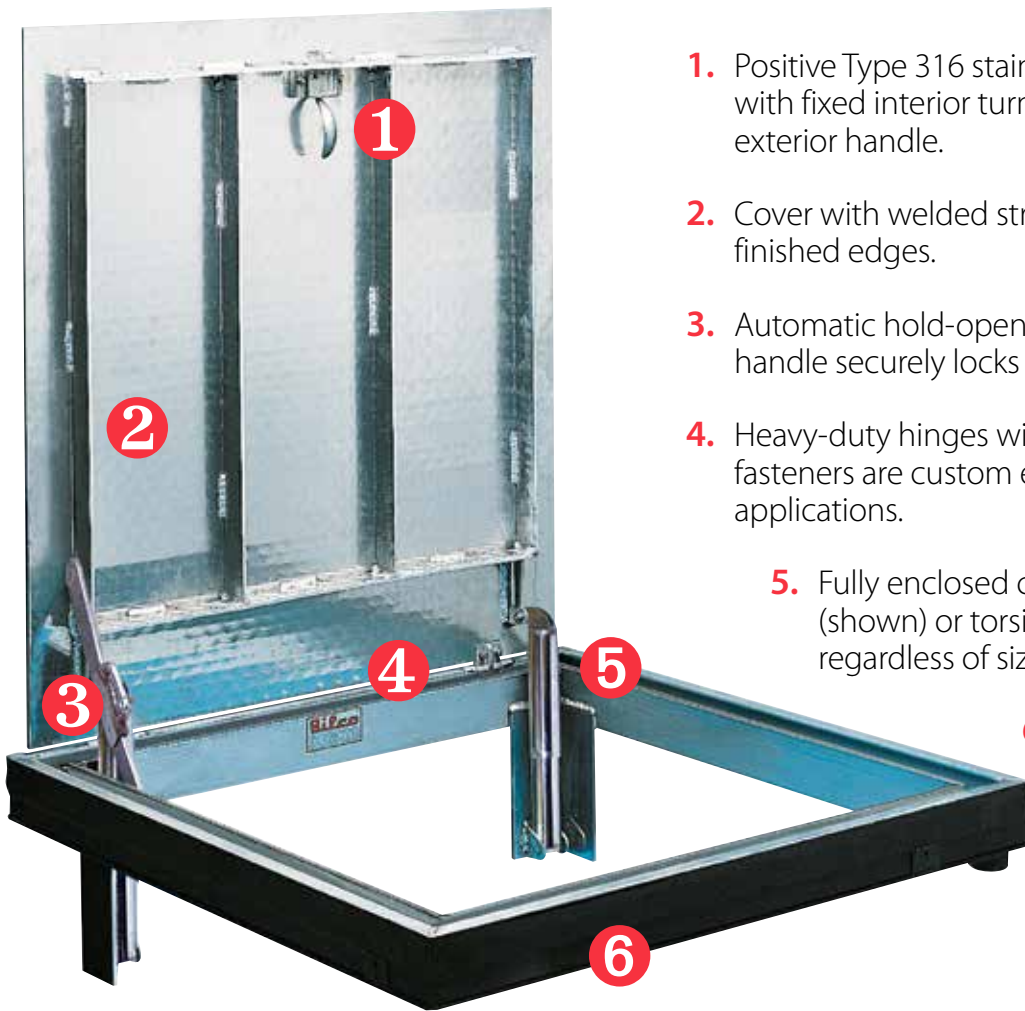
### *Channel Frame – Drainage*

Constructed for use in exterior applications or in those situations where there is concern of water or other liquids entering the access opening. These doors are supplied with a threaded drain coupling fully welded to the channel frame for connection to a dry or wet well in the field.

### *Angle Frame – Non-Drainage*

Generally for interior use or exterior applications where water or liquid infiltration is not a concern.





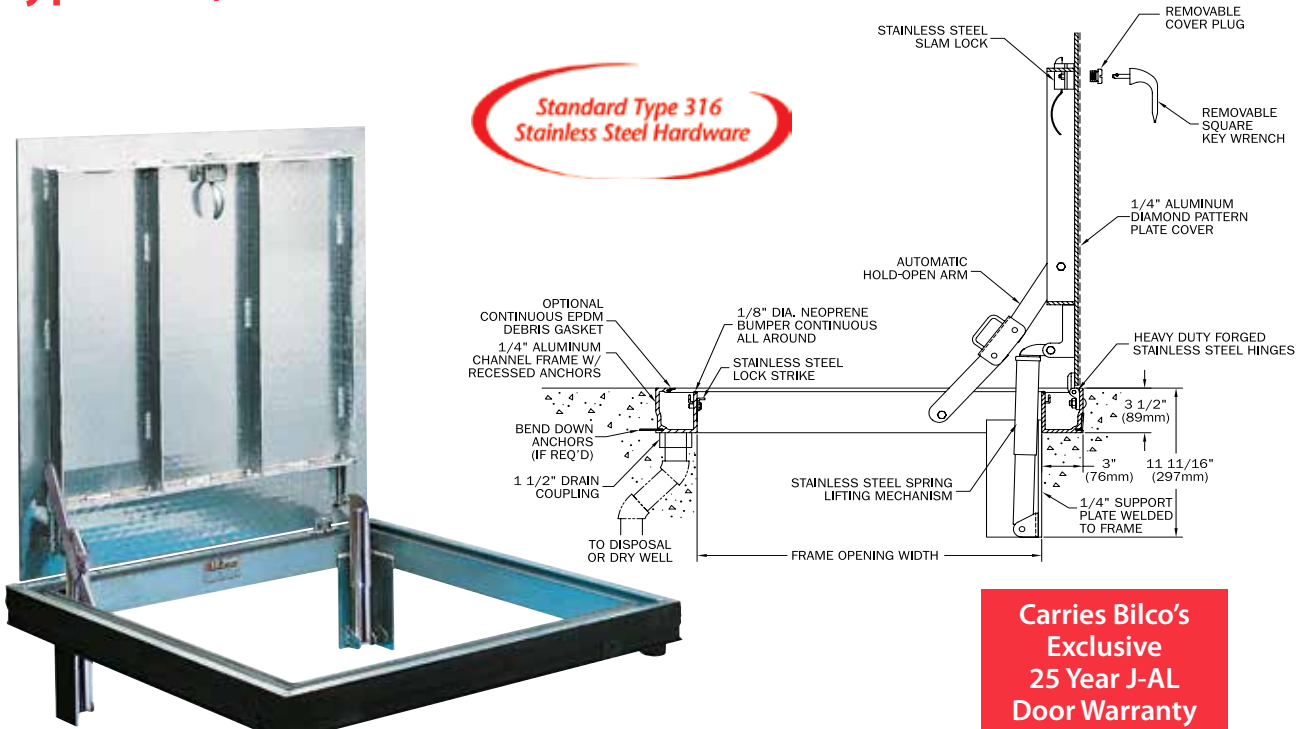
1. Positive Type 316 stainless steel latching mechanism with fixed interior turn handle and removable exterior handle.
2. Cover with welded structural reinforcing and finished edges.
3. Automatic hold-open arm with convenient release handle securely locks the cover in the open position.
4. Heavy-duty hinges with tamper-proof exterior fasteners are custom engineered for horizontal door applications.
5. Fully enclosed compression spring operators (shown) or torsion bars counterbalance covers regardless of size or weight.
6. Bituminous coating applied to the exterior of the frame on all aluminum products.

Type J-AL Door shown with channel frame





# Type J-AL, J-DAL Aluminum Channel Frame Door



**Carries Bilco's  
Exclusive  
25 Year J-AL  
Door Warranty**

**Description:**

Ideal for most corrosive environments. Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 300 lb/ft<sup>2</sup> (1464 kg/m<sup>2</sup>) live load. Features standard Type 316 stainless steel hardware and a versatile anchoring system for ease of installation.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Diamond-pattern tread plate reinforced for 300 psf (1464 kg/m<sup>2</sup>) live load

**Frame**

Extruded aluminum channel frame with bend down anchor tabs around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

**Hinges**

Heavy forged stainless steel hinges with 1/4" (6.3mm) Type 316 stainless steel hinge pins

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm locks the cover in the open position.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

All hardware is Type 316 stainless steel

**Standard Sizes and Weights**

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	J-1AL	65	30
30 x 30	762 x 762	J-2AL	88	40
36 x 30	914 x 762	J-3AL	97	44
36 x 36	914 x 914	J-4AL	108	49
42 x 42	1067 x 1067	J-5AL	135	61
48 x 30	1219 x 762	JD-1AL	145	66
48 x 48	1219 x 1219	JD-2AL	173	79
48 x 72	1219 x 1829	JD-3AL	234	106
60 x 60	1524 x 1524	JD-4AL	241	109

Models with "D" in the Model # indicate double leaf configuration

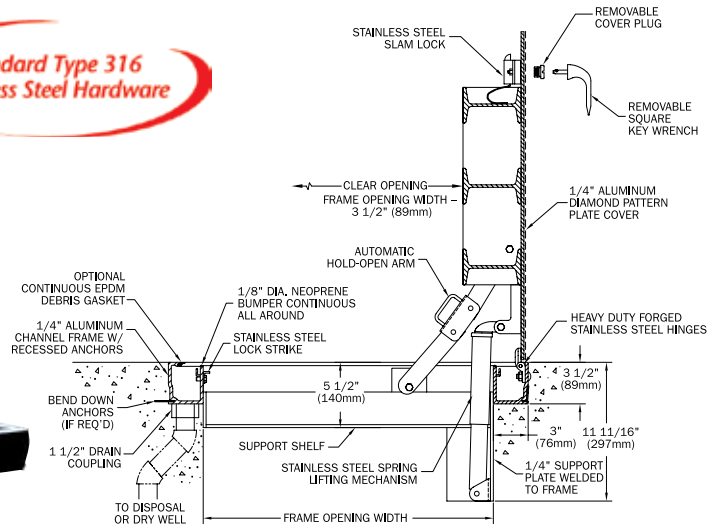




# Type J-AL-H20, J-DAL-H20 Aluminum Channel Frame Door



Standard Type 316  
Stainless Steel Hardware



**Carries Bilco's  
Exclusive  
25 Year J-AL  
Door Warranty**

**Description:**

Designed to withstand vehicular traffic in off-street locations. Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for AASHTO H-20 wheel loading. With all the same features as the Type J-AL, this door is also ideal for most corrosive environments.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Diamond-pattern tread plate reinforced for H-20 wheel loading. Designed for installation in off-street locations where the door is not subjected to high-density, fast-moving traffic. Structural calculations available upon request.

**Frame**

Extruded aluminum channel frame with bend down anchor tabs around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

**Hinges**

Heavy forged stainless steel hinges with 1/4" (6.3mm) Type 316 stainless steel hinge pins

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm locks the cover in the open position.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

All hardware is Type 316 stainless steel

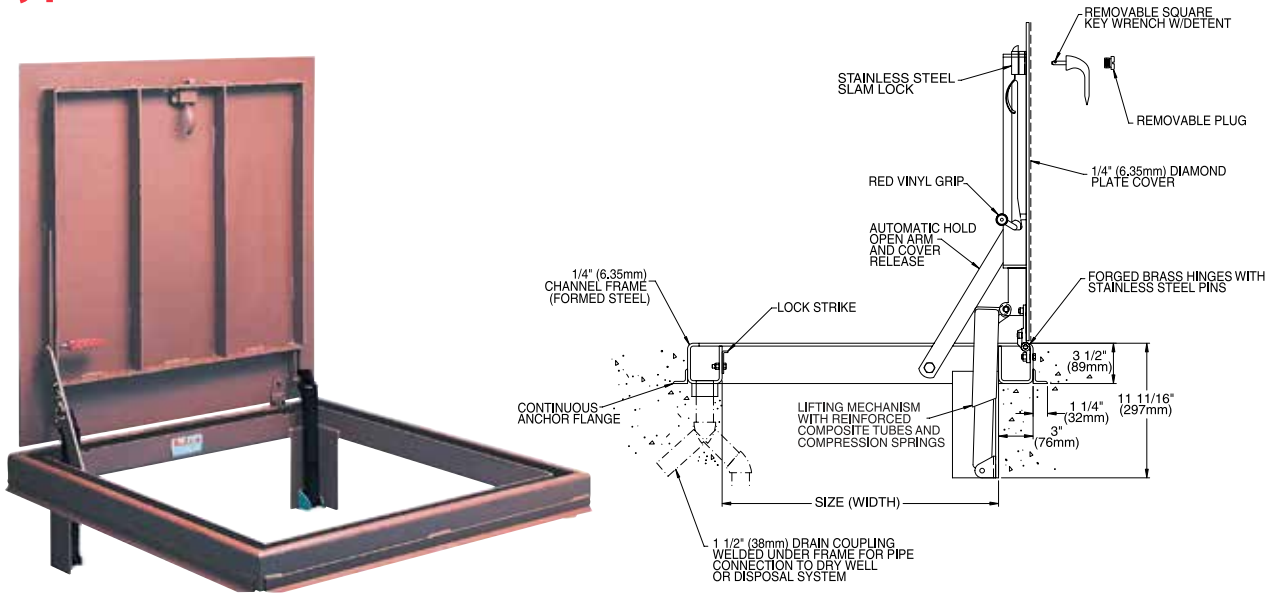
**Standard Sizes and Weights**

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	J-1AL H20	110	50
30 x 30	762 x 762	J-2AL H20	124	56
36 x 30	914 x 762	J-3AL H20	165	75
36 x 36	914 x 914	J-4AL H20	174	79
42 x 42	1067 x 1067	J-5AL H20	235	107
48 x 30	1219 x 762	JD-1AL H20	201	91
48 x 48	1219 x 1219	JD-2AL H20	293	133
48 x 72	1219 x 1829	JD-3AL H20	485	220
60 x 60	1524 x 1524	JD-4AL H20	500	227

Models with "D" in the Model # indicate double leaf configuration



## Type J, JD Steel Channel Frame Door



### Description:

Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 300 lb/ft<sup>2</sup> (1464 kg/m<sup>2</sup>) live load. Features reinforced composite spring tubes, heavy forged brass hinges, and zinc plated/chromate sealed hardware.

### Specifications:

#### Material

Cover and frame are 1/4" (6.35mm) steel

#### Cover

Diamond-pattern tread plate reinforced for 300 psf (1464 kg/m<sup>2</sup>) live load

#### Frame

Formed channel frame with full anchor angle welded around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

#### Hinges

Heavy forged brass hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

#### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

#### Finish

Alkyd base red oxide primer

#### Hardware

Engineered composite compression spring tubes. Steel compression springs. Slam lock and all fasteners are Type 316 stainless steel. All other hardware is zinc plated/chromate sealed.



### Standard Sizes and Weights

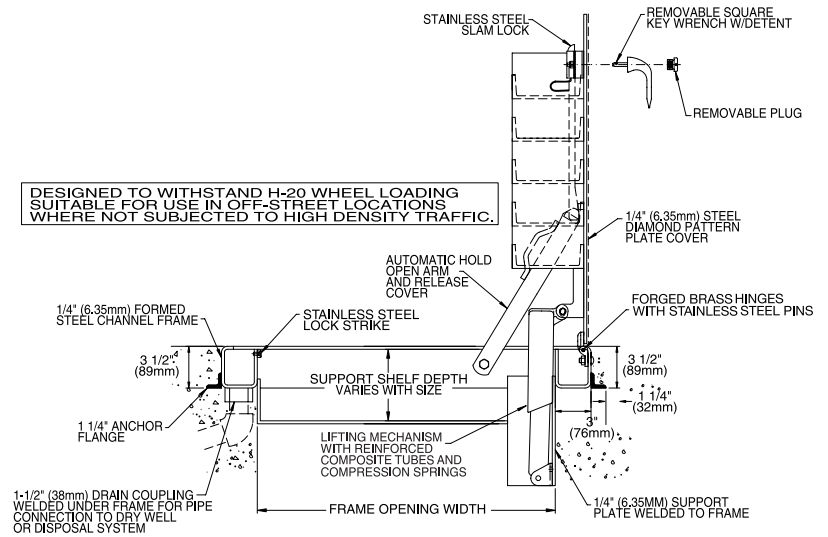
SIZE		Model #	STEEL	
(width x length)			Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	J-1	179	81
30 x 30	762 x 762	J-2	231	105
36 x 30	914 x 762	J-3	274	124
36 x 36	914 x 914	J-4	300	136
42 x 42	1067 x 1067	J-5	402	182
48 x 30	1219 x 762	JD-1	365	166
48 x 48	1219 x 1219	JD-2	498	226
48 x 72	1219 x 1829	JD-3	652	296
60 x 60	1524 x 1524	JD-4	663	301

Models with "D" in the Model # indicate double leaf configuration





# Type J-H20, JD-H20 Steel Channel Frame Door



### Description:

Designed to withstand vehicular traffic in off-street locations. Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for AASHTO H-20 wheel loading. Features reinforced composite spring tubes, heavy forged brass hinges and zinc plated/chromate sealed hardware.

### Specifications:

#### Material

Cover and frame are 1/4" (6.35mm) steel

#### Cover

Diamond-pattern tread plate reinforced for H-20 wheel loading. Designed for installation in off-street locations where the door is not subjected to high-density, fast-moving traffic. Structural calculations available upon request.

#### Frame

Formed channel frame with full anchor angle welded around the perimeter. A 1-1/2" (38mm) drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

#### Hinges

Heavy forged brass hinges with 3/8" (9.5mm) Type 316 stainless steel hinge pins

#### Latch

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

#### Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

#### Finish

Alkyd base red oxide primer

#### Hardware

Engineered composite compression spring tubes. Steel compression springs. Slam lock and all fasteners are Type 316 stainless steel. All other hardware is zinc plated/chromate sealed.

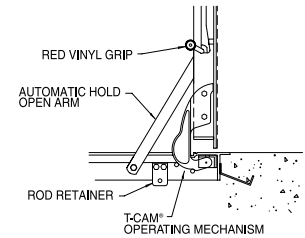
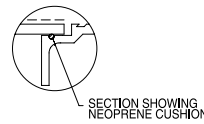
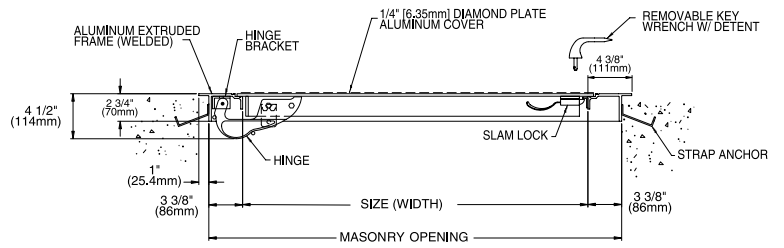


### Standard Sizes and Weights

SIZE		STEEL		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	J-1 H20	250	113
30 x 30	762 x 762	J-2 H20	350	159
36 x 30	914 x 762	J-3 H20	425	193
36 x 36	914 x 914	J-4 H20	490	222
42 x 42	1067 x 1067	J-5 H20	635	288
48 x 30	1219 x 762	JD-1 H20	532	241
48 x 48	1219 x 1219	JD-2 H20	815	370
48 x 72	1219 x 1829	JD-3 H20	1235	560
60 x 60	1524 x 1524	JD-4 H20	1180	535

Models with "D" in the Model # indicate double leaf configuration

# Type K, KD Aluminum Angle Frame Door



**Description:**

Single or double leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 150 lb/ft<sup>2</sup> (732 kg/m<sup>2</sup>) live load. Features zinc plated and chromate sealed hardware, concealed hinges and the T-CAM® lifting system for ease of operation.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Diamond-pattern tread plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load

**Frame**

Extruded aluminum angle frame with strap anchors bolted around the perimeter

**Hinges**

Cast steel cam-action hinges that are concealed from the exterior of the door

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle

**Lift Assistance**

Torsion bars that pivot on cam-action hinges. Automatic hold-open arm with grip handle release.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Zinc plated/chromate sealed

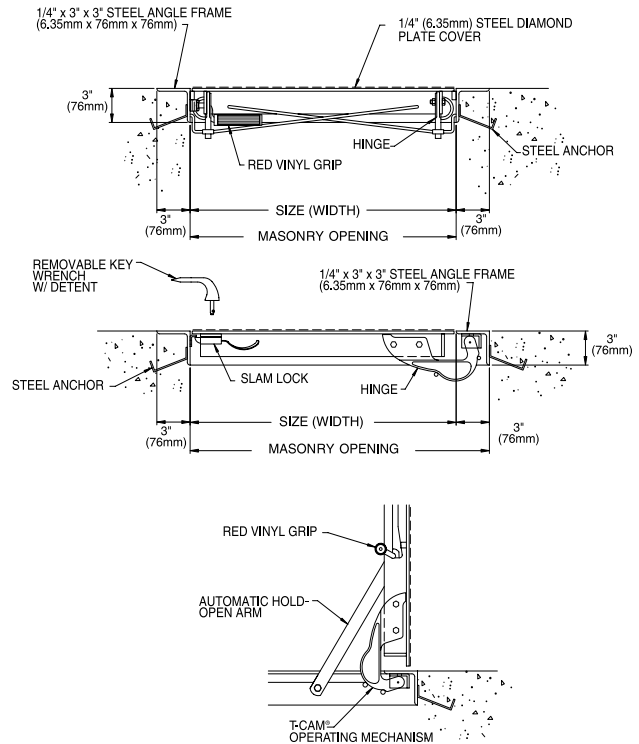
**Standard Sizes and Weights**

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	K-1	50	23
30 x 30	762 x 762	K-2	65	30
36 x 30	914 x 762	K-3	77	35
36 x 36	914 x 914	K-4	86	39
42 x 42	1067 x 1067	K-5	109	50
48 x 48	1219 x 1219	KD-2	152	69
48 x 72	1219 x 1829	KD-3	214	97
60 x 60	1524 x 1524	KD-4	222	101

Models with "D" in the Model # indicate double leaf configuration



# Type Q Steel Angle Frame Door



**Description:**

Single leaf covers are constructed of 1/4" (6.35mm) diamond pattern plate and reinforced for a 150 lb/ft<sup>2</sup> (732 kg/m<sup>2</sup>) live load. Features zinc plated and chromate sealed hardware, concealed hinges and the T-CAM<sup>®</sup> lifting system for ease of operation.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) steel

**Cover**

Diamond-pattern tread plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load

**Frame**

Steel angle frame with strap anchors welded around the perimeter

**Hinges**

Cast steel cam-action hinges that are concealed from the exterior of the door

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle

**Lift Assistance**

Torsion bars that pivot on cam-action hinges. Automatic hold-open arm with grip handle release.

**Finish**

Alkyd base red oxide primer

**Hardware**

Zinc plated/chromate sealed

**Standard Sizes and Weights**

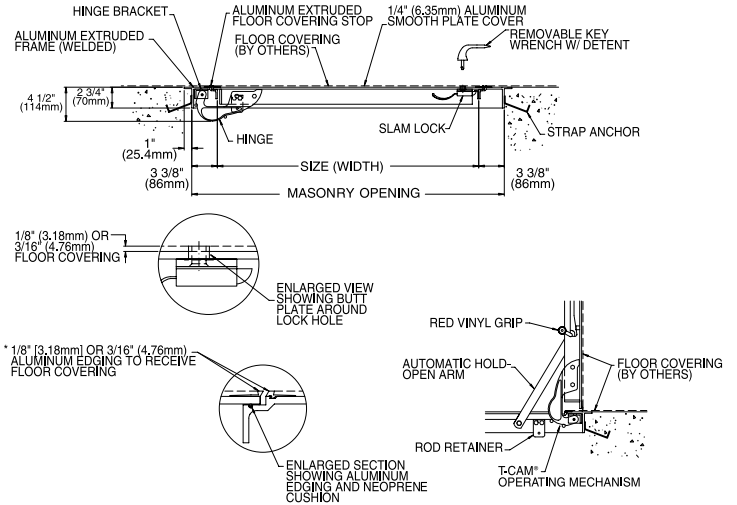
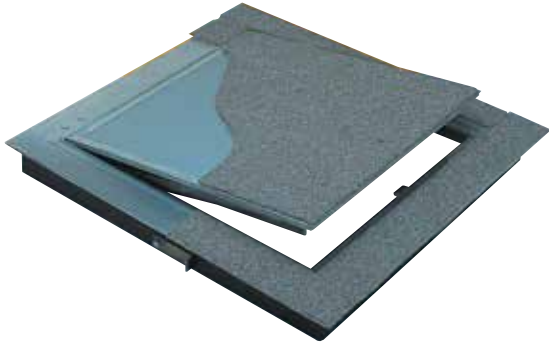
SIZE		STEEL	STEEL		
(width x length)			Model #	Weight	
inches	mm			lbs.	kg.
24 x 24	610 x 610	Q-1	122	55	
30 x 30	762 x 762	Q-2	166	75	
30 x 36	762 x 914	Q-3	190	86	
36 x 36	914 x 914	Q-4	219	100	





# Type T, TD Aluminum for Finished Flooring Materials

Accepts Carpet and Composition Flooring



\*Note: For direct glue down carpet (no pad), specify 3/16"

**Description:**

Single or double leaf doors are virtually hidden in interior applications. Will accept carpet or composition flooring material 1/8" (3.18mm) or 3/16" (4.76mm) in thickness. Features cover and frame mounted molding strips to accept floor covering and Type K hardware and construction.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Smooth plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load. Extruded aluminum molding adhered to the perimeter to accept floor-covering material [specify either 1/8" (3.2mm) or 3/16" (4.8mm) molding height].

**Frame**

Extruded aluminum angle frame with strap anchors bolted around the perimeter. Extruded aluminum molding fastened to the perimeter to accept floor-covering material [specify either 1/8" (3.2mm) or 3/16" (4.8mm) molding height].

**Hinges**

Cast steel cam-action hinges that are concealed from the exterior of the door

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle

**Lift Assistance**

Torsion bars that pivot on cam-action hinges. Automatic hold-open arm with grip handle release.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Zinc plated/chromate sealed

**Standard Sizes and Weights**

SIZE		ALUMINUM	ALUMINUM	
(width x length)			Model #	Weight
inches	mm			lbs.
24 x 24	610 x 610	T-1	53	24
30 x 30	762 x 762	T-2	68	31
36 x 30	914 x 762	T-3	82	37
36 x 36	914 x 914	T-4	91	41
42 x 42	1067 x 1067	T-5	114	52
48 x 48	1219 x 1219	TD-2	172	78
48 x 72	1219 x 1829	TD-3	224	102
60 x 60	1524 x 1524	TD-4	230	104

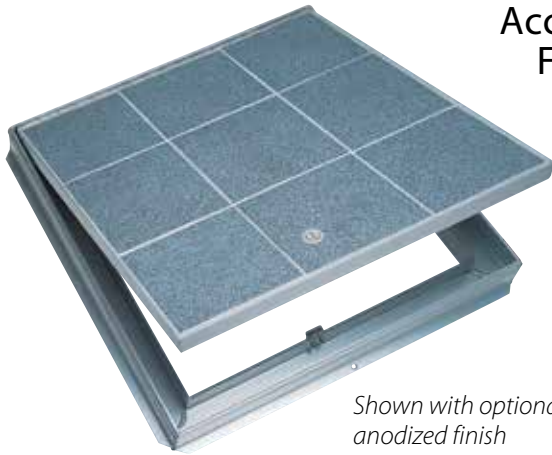
Models with "D" in the Model # indicate double leaf configuration



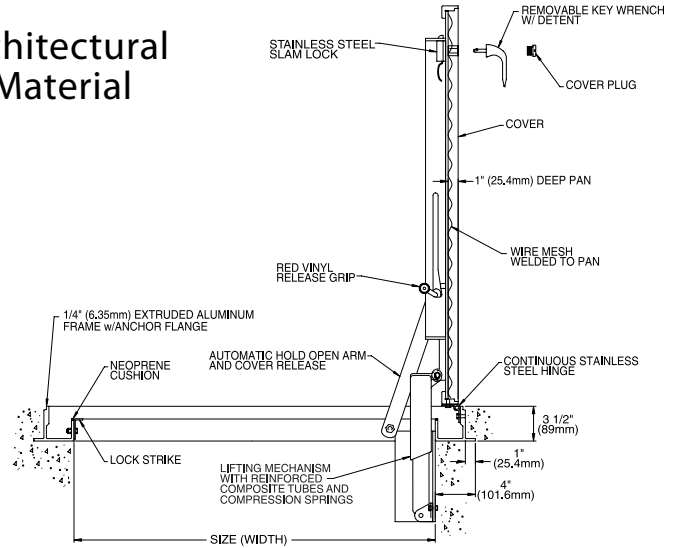


# Type TER, TRD Aluminum for Finished Flooring Materials

Accepts Architectural Flooring Material



Shown with optional anodized finish



**Description:**

Similar to the Type T in function, these single and double leaf doors are designed with a pan cover to accept a variety of flooring materials up to 1" (25.4mm) in thickness. Each door is spring balanced at the factory to ensure smooth, easy operation upon installation of the specified flooring material in the field. Note: Available with drain coupling for drainage applications.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Smooth plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load. Cover designed with 1" (25.4mm) fillable pan for field installation of architectural flooring material (specify flooring material including type, thickness and weight).

**Frame**

Extruded aluminum frame with built in anchor flange around the perimeter

**Hinges**

Continuous heavy-duty Type 316 stainless steel hinge

**Latch**

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug.

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



**Standard Sizes and Weights**

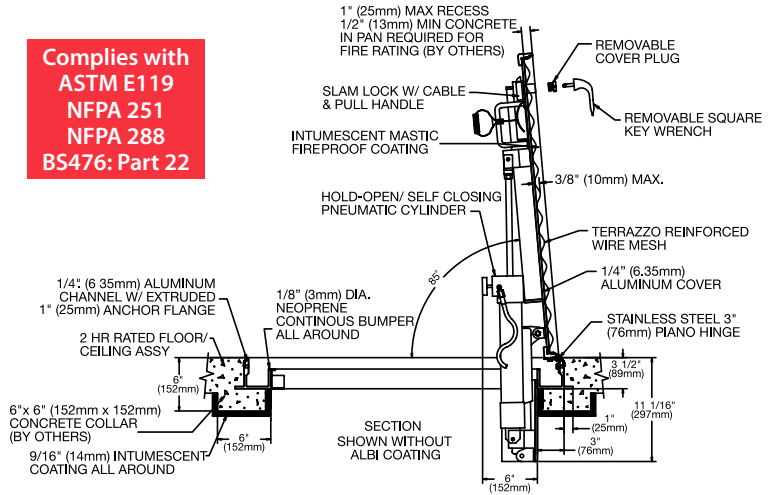
SIZE		ALUMINUM	Weight	
(width x length)			Model #	lbs.
inches	mm			
24 x 24	610 x 610	TER-1	100	45
30 x 30	762 x 762	TER-2	110	50
36 x 30	914 x 762	TER-3	120	54
36 x 36	914 x 914	TER-4	130	59
42 x 42	1067 x 1067	TER-5	165	75
48 x 48	1219 x 1219	TRD-2	200	91
48 x 72	1219 x 1829	TRD-3	275	125
60 x 60	1524 x 1524	TRD-4	285	129

Models with "D" in the Model # indicate double leaf configuration

# Type FR Fire-Rated Floor Door



**Complies with**  
**ASTM E119**  
**NFPA 251**  
**NFPA 288**  
**BS476: Part 22**



**Description:**

Maintains the fire rating of a 2-hour floor/ceiling assembly where access is required between building floors. Features include an optional UL Listed automatic closing system, intumescent fire resistant coating and a pan cover designed to accept architectural flooring materials.

**Specifications:**

**Material**

Cover and frame are 1/4" (6.35mm) aluminum

**Cover**

Aluminum plate reinforced for 150 psf (732 kg/m<sup>2</sup>) live load. Intumescent fire coating applied to the underside of the cover. Designed with 1" (25.4mm) fillable pan for field installation of architectural flooring material up to 1/2" (12.7mm) thickness (specify flooring material including type, thickness and weight). The remaining depth must be filled with concrete to maintain the fire rating of the door assembly (if finish flooring is not desired, the pan must be filled with 1" (25.4mm) of concrete).

**Frame**

Extruded aluminum frame with built-in anchor flange around the perimeter Intumescent fire coating applied on the interior surfaces of the frame

**Hinges**

Continuous heavy-duty Type 316 stainless steel hinge

**Latch**

Pneumatic self closing system that automatically closes the door in the event of a fire when heat parts a UL-listed 165°F (74°C) fusible link

**Lift Assistance**

Compression spring operators enclosed in telescopic tubes. Mechanical hold-open system with release button automatically holds the cover in the open position.

**Performance Ratings**

Tested in accordance with ASTM E119, NFPA 251, NFPA 288, BS476: Part 22 and UL-listed (File R15197) as having a 2-hour fire rating when exposed to fire from the underside

**Finish**

Mill finish aluminum with a bituminous coating applied to the exterior of the frame

**Hardware**

Engineered composite compression spring tubes. Steel compression springs. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.



Self-closing mechanism Automatically closes the door in the event of a fire. Door remains firmly closed to prevent the spread of fire between building floors.



**Standard Sizes and Weights**

SIZE		ALUMINUM	ALUMINUM		ALUMINUM	
(width x length)			Model #	Clear Opening		Weight
inches	mm			inches	mm	lbs.
30 x 30	762 x 762	FR-2	29 x 23.75	736 x 603	271	123
36 x 30	914 x 762	FR-3	35 x 23.75	889 x 603	277	126
36 x 36	914 x 914	FR-4	35 x 29.75	889 x 755	326	148
42 x 42	1067 x 1067	FR-5	40 x 35.75	1016 x 908	368	167
30 x 48	762 x 1219	FR-6	29 x 41.75	736 x 1060	328	149

Specify Type FR-LC if closing mechanism is not required by local fire authorities having jurisdiction

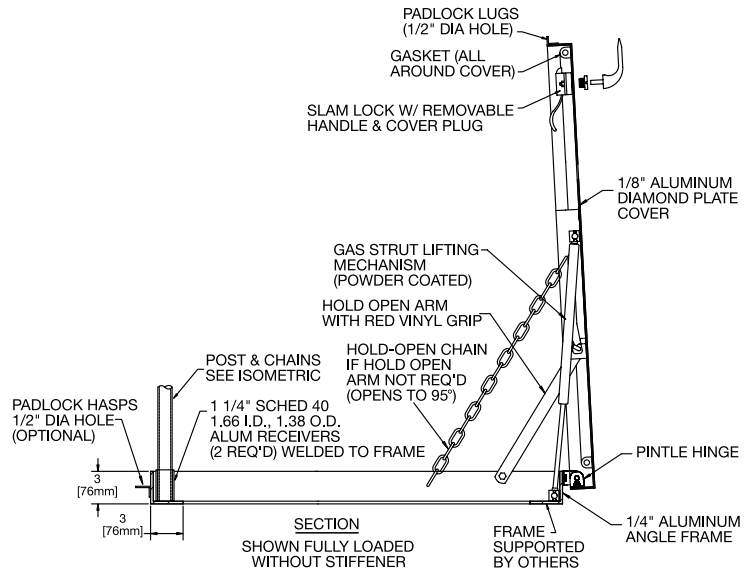




# Type SM Surface Mount Access Door



Shown with optional safety post & chains and padlock hasp



### Description:

Provides a cost effective solution for access to underground vaults that do not require the use of a flush-mounted door. Features a concealed internal mounting flange that makes installation easy and secure. Simply position the door over the vault opening and bolt it into place. Ideal for applications where the infiltration of contaminants is a concern. Its gasketed, over-lapping cover design sheds water and prevents debris and other pollutants from entering the opening.

### Specifications:

#### Material

1/8" (3mm) aluminum diamond plate cover and 1/4" (6mm) aluminum angle frame

#### Cover

Diamond-pattern tread plate reinforced for 105 psf (5 kpa) live load

#### Frame

1/4" x 3" x 3" (6.4mm x 76mm x 76mm) angle frame with internal mounting flange and 7/16" (11mm) diameter anchor holes

#### Gasket

Extruded EPDM rubber gasket permanently adhered to cover

#### Hinges

Heavy-duty, stainless steel pintle hinges with 3/8" (9.5mm) type 316 stainless steel hinge pins

#### Latch

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug. (For added security, specify: full welded exterior padlock hasp.)

#### Lift Assistance

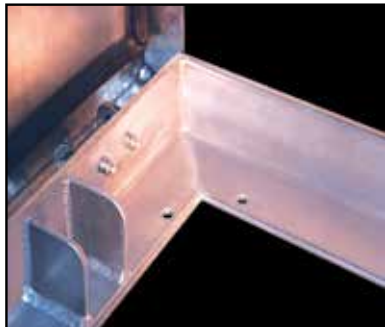
Gas strut lifting mechanism. Automatic hold-open arm with grip handle release.

#### Finish

Mill Finish aluminum

#### Hardware

Gas strut has a powder coat finish. All other hardware is type 316 stainless steel unless otherwise specified.



Internal Surface Mounting Flange



Concealed Stainless Steel Hinges

### Standard Sizes and Weights

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		inches	mm
24 x 24	610 x 610	SM-1	61	28
30 x 30	762 x 762	SM-2	71	32
36 x 30	914 x 762	SM-3	78	35
36 x 36	914 x 914	SM-4	86	39
42 x 42	1067 x 1067	SM-5	99	45

Along with its complete line of floor, vault, and sidewalk doors, Bilco's extensive custom-design capabilities can provide you with the exact door you need for your unique applications. Contact The Bilco Company for more information on any of these products.



**Doors for Extreme Loading Conditions**

The **Type HLC** is specially designed for extreme loading conditions generated by vehicles such as large aircraft, heavy equipment and forklift trucks. Doors will withstand a live load of 200 lb/in<sup>2</sup> (14 kg/cm<sup>2</sup>) plus 30% impact.

**Precast Vault Access Doors**

**Type PCM & PDCM** doors incorporate several innovative features which reduce the amount of labor required to cast the door into a concrete vault.



**Special Sizes**

**Type JD & JD-AL** doors can be manufactured to virtually any size to meet your unique access requirements. Even extremely large doors, such as the one shown, are designed for easy operation by one person.

**Emergency Evacuation Doors for Transit Systems**

**Type JD** and **JD-AL** doors can be designed to provide egress from underground, rapid transit system platforms and tunnels in emergency situations. Door is designed with stainless steel panic hardware and compression spring operators for ease of operations. Other important features include H-20 reinforcing, handrails, custom signage and a slip-resistant cover finish.



**Odor Control Access Doors** (not shown)

Type **J-AL** single leaf doors can be supplied with provisions for odor control by specifying Type **J-AL-R**. Doors are designed to contain odors and reduce the air leakage rate in odor emitting environments. Tested under a 1" (25.4mm) column of water, the Type **J-AL-R** door provides an air infiltration rate of less than 1 ft.<sup>3</sup>/min (0.28m<sup>3</sup>/min) per lineal foot of cover perimeter.

## Options Floor Access Doors

Bilco floor access doors can include any of the modifications shown below. In addition, Bilco's engineering department will custom design doors for your unique applications.

### Locking and Latching Devices

The following lock options are available to add security and prevent unauthorized access:



Cylinder lock with a keyway protected by a threaded cover plug



Recessed padlock hasp covered by a flush hinged lid



Security cover plugs

Additional lock options include padlock lugs welded to the exterior door surface, high security detention locks, and panic hardware for emergency egress. In addition to the options shown, Bilco's engineering department can custom design products to meet your security needs.

### Special Finishes

Where specified, Bilco Model J, JD, and Q doors and frames can be supplied with a hot-dip galvanized finish (ASTM A-123). All aluminum doors can be supplied with an anodized finish. Other custom finishes are available when specified.

### Stainless Steel Hardware

For installation in highly corrosive environments or when prolonged exposure to hot water or steam is anticipated, Bilco recommends stainless steel hardware. Standard Type 316 stainless steel hardware is featured on Type J-AL, JD-AL, J-AL H20 and JD-AL H20 doors. Other products can be supplied with stainless steel hardware upon request.

### Other Options

- Steel or aluminum grating
- Submersible pump guide rail brackets
- Metal enclosed insulation
- Slip resistant coatings
- Drop-in installation modifications
- Handrails
- Panic hardware
- Snow and ice melting cables
- Electric motor operation
- Fall protection grating (see page 38 for more information)
- Wireless Security system for Intrusion Detection (see page 39 for more information)



Stainless Steel Hardware



Special Finishes



Grating Panel Covers



## Fall Protection Grating System



Fall Protection Grating System allows workers to safely inspect pumps and monitor underground areas. System permanently mounts under access door covers and is available as a factory installed option on the following Bilco models:



- Type J, JD, J-AL, J-DAL 300 PSF (1464 kg/m<sup>2</sup>) and H-20 reinforced doors
- Available on all standard sizes
- Also available for special sizes — contact Bilco for more information
- Retrofit kits are also available for field installation (for door models noted above)

### Standard Features and Benefits

- Provides a permanent means of fall protection under access doors
- Exceeds OSHA fall protection requirements
- Features an aluminum grating with a safety-yellow powder coat finish for added durability
- Equipped with a stainless steel automatic hold-open device that securely locks the panel in the full open position
- Features stainless steel hardware for corrosion resistance
- Supplied with a padlock hasp for added security
- Backed by a 25-year manufacturer's warranty



*The unique pintle hinge design allows the fall protection grating panel to open to the full 90° position to maximize the area available for access*



### Specifications

Grating panel(s) shall be aluminum with a powder coat paint finish that is safety-yellow in color. Panel shall be designed to meet the requirements of OSHA standard 29 CFR 1910.23 and be equipped with a hold-open device to lock the grating panel(s) in the open position. Hold-open device and all hardware shall be Type 316 stainless steel. Manufacturer shall provide a 25-year warranty against defects in material and workmanship.



## Other Bilco Products

### CNIguard™ Intrusion Detection System

Wireless Security System protects access points in drinking water distribution systems against the threats of vandalism and intentional contamination.



- Wireless Security System eliminates the expense and time required to hard wire a traditional security monitoring system
- Utilizes a patented Smart Sensing Technology to detect tampering at access points (drilling, grinding, cutting, etc.)
- Computerized system distinguishes between threats and common occurrences (heavy rain, hail, etc.) to virtually eliminate costly false alarms
- Unlike video or audio surveillance systems, the CNIguard System does not rely on human interpretation to determine if a threat is real



Scan this tag to check out our product demonstration video

*"...the current strategy to secure national water supplies places the bulk of the responsibility on individual utilities..."*

— Excerpt from The Biological Threat to U.S. Water Supplies: Toward a National Water Security Policy

## Residential Products



### Bilco Basement Doors

Basement doors are ideal for access to basement storage areas and for moving large items into finished basement areas. The wide opening allows storage items such as deck and patio furniture, and large items such as pool tables and large furniture, to be easily moved in and out of a basement. Doors meet building code requirements for emergency egress and are available in prime painted steel and high-density polyethylene construction.



Now available with a powder coat paint finish. Scan this tag to watch our video.



### Window Well Systems

Add natural daylight and ventilation to basement rooms, making them as warm and comfortable as any area in the home. Window Well Systems meet building code requirements for emergency egress and are constructed from non-corrosive materials for many years of maintenance-free service. Systems simply snap or slide together on site for easy installation and dome covers are available to protect the well opening.



Log on to [www.bilco.com](http://www.bilco.com) to find a  
Sales Representative near you.



Scan this tag to find your  
Bilco Sales Representative

**The Bilco Company**  
P.O. Box 1203, New Haven, CT 06505 U.S.A.  
Phone: (800) 366-6530  
Fax: (203) 933-8478  
E-mail: [commercial@bilco.com](mailto:commercial@bilco.com)

**[www.bilco.com](http://www.bilco.com)**



# Enhanced Performance Roof Hatches

## Our Most Energy-Efficient Model Yet!



Type S-50T Roof Hatch

The new thermally enhanced design features special gasketing and increased insulation for superior thermal performance to improve the energy efficiency of your building.

- Energy efficiency exceeds standard hatches by more than 48%
- Meets LEED® standards for recycled content
- High solar reflective index (SRI)
- Ozone-friendly polyisocyanurate insulation
- EPDM gasketing with enhanced weather-resistance



Available in a Number of Standard Sizes



Type L-50T



Type NB-50T



[www.bilco.com](http://www.bilco.com)



# Specifications

Furnish and install where indicated on plans metal roof hatch. Length denotes hinge side. These roof hatches shall be single leaf. The roof hatch shall be pre-assembled from the manufacturer.

**Performance Characteristics:** Cover shall be reinforced to support a minimum live load of 40 psf (195 kg/m<sup>2</sup>) with a maximum deflection of 1/150th of the span or 20 psf (97 kg/m<sup>2</sup>) wind uplift. Operation of the cover shall be smooth and easy with controlled operation throughout the entire arc of opening and closing. Operation of the cover shall not be affected by temperature. Entire hatch shall be weathertight with fully welded corner joints on cover and curb.

**Cover:** .090 (2.3mm) aluminum with a 4" (102mm) beaded flange with formed reinforcing members. Cover shall have a heavy extruded EPDM rubber gasket which is bonded to the cover interior to ensure a continuous seal when compressed to the top surface of the curb.

**Cover Insulation:** Shall be polyisocyanurate of 2" (50mm) thickness with an R-value of 12. Insulation shall be fully covered and protected by an aluminum liner.

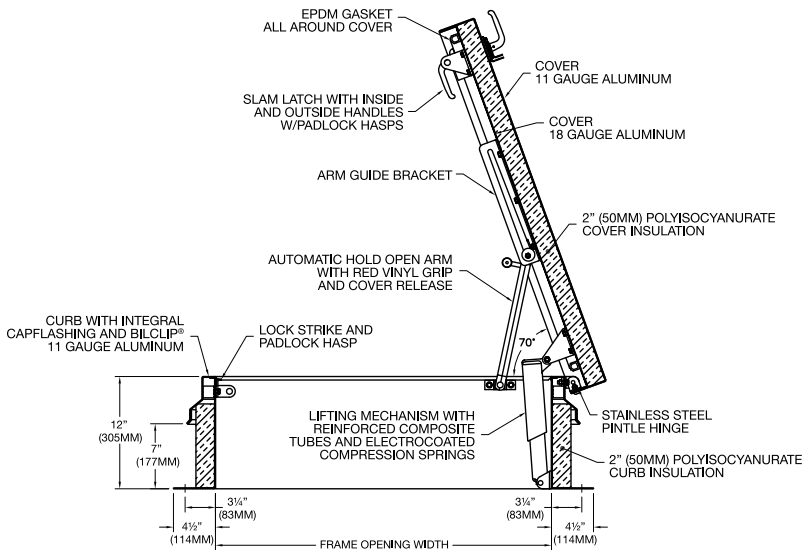
**Curb:** Shall be 12" (305mm) in height and of .090 (2.3mm) aluminum. The curb shall be formed with a 4 1/2" (114mm) flange with 7/16" (11mm) holes provided for securing to the roof deck. The curb shall be equipped with an integral metal capflashing of the same gauge and material as the curb, fully welded at the corners, that features the Bilclip® flashing system, including stamped tabs, 6" (153mm) on center, to be bent inward to hold single ply roofing membrane securely in place.

**Curb Insulation:** Shall be polyisocyanurate of 2" (50mm) thickness with an R-value of 12.

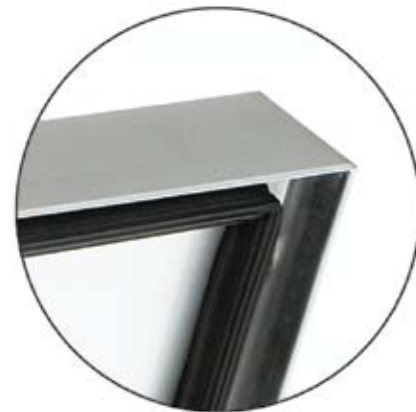
**Lifting Mechanisms:** Manufacturer shall provide compression spring operators enclosed in telescopic tubes to provide smooth, easy, and controlled cover operation throughout the entire arc of opening and closing. The upper tube shall be the outer tube to prevent accumulation of moisture, grit, and debris inside the lower tube assembly. The lower tube shall interlock with a flanged support shoe that is bolted to the curb assembly.

**Hardware:** Heavy stainless steel pintle hinges shall be provided. Cover shall be equipped with a spring latch with interior and exterior turn handles. Shall be equipped with interior and exterior padlock hasps. The latch strike shall be bolted to the curb assembly. Cover shall automatically lock in the open position with a rigid hold open arm equipped with a 1" (25mm) diameter red vinyl grip handle to permit easy release for closing. 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]. Cover hardware shall be bolted into heavy gauge channel reinforcing welded to the underside of the cover and concealed within the insulation space.

**Finishes:** Factory finish shall be mill finish aluminum.



Type S-50T and E-50T shown. All other models open to 90°.



EPDM Finger Type Gasket

## Standard Sizes & Weights

TYPE	SIZE		WEIGHT	
	Inside Frame Opening		lbs.	kg.
	inches	mm		
S-50T	36 x 30 (H)	915 x 760 (H)	132	60
E-50T	36 x 36	915 x 915	143	65
NB-50T	30 x 54 (H)	760 x 1370 (H)	168	76
L-50T	30 x 96 (H)	760 x 2440 (H)	287	130
F-50T	48 x 48	1220 x 1220	249	113

H = Hinge Side

Special sizes available upon request



The Bilco Company  
 New Haven, CT 06505  
 203-934-6363 • Fax: 203-933-8478  
 E-mail: bilco@bilco.com

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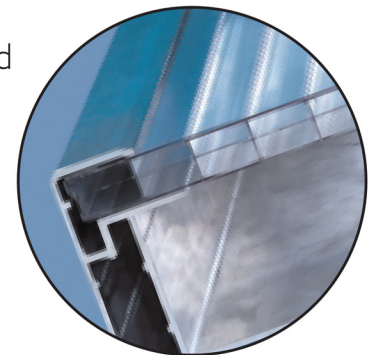


# The Lumivent<sup>®</sup>

**Bilco has re-engineered its domed fire vent to provide a new low profile cover design and to enhance its thermal insulation. The Lumivent<sup>®</sup> gives you natural daylight, energy efficiency, and the protection you need as well as the performance you expect from Bilco — all at competitive pricing.**

## Standard Features Include:

- Multi-wall, polycarbonate cover design offers over a 40% improvement in insulation performance compared to traditional domes
- The patented Bilco Thermolatch<sup>®</sup> II latching mechanism provides reliable operation and easy resetting
- Cover design maximizes light transmittance while minimizing solar heat gain
- Covers are surface treated to resist UV degradation
- Covers are fully gasketed for weathertight construction
- Available in standard UL Listed sizes



*Cross-section of covers*

**For more information on this product, contact Bilco or log-on to [www.bilco.com](http://www.bilco.com)**

**Bilco is an ISO 9001 certified company**

**Bilco<sup>®</sup>**

*Since 1926*

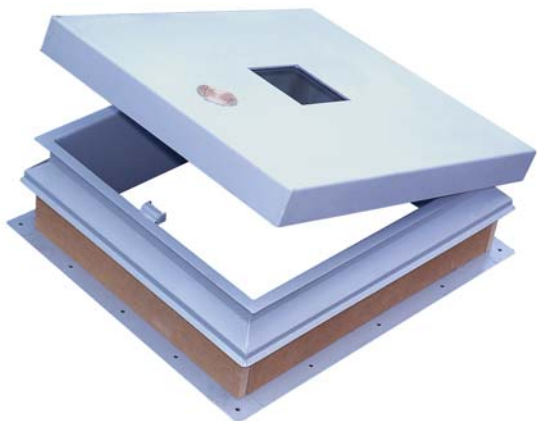
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 Fax (203) 933-8478  
 email: [commercial@bilco.com](mailto:commercial@bilco.com)







## Optional TNEMEC Paint Finish



Bilco Architectural products are available with an optional Tnemec paint finish. Finish is suitable for both steel and aluminum products and is available in a wide variety of colors. Complete information on Tnemec finishes, including color options, can be obtained from the Tnemec website by clicking on the links provided below.

### Digital Color Palette

<http://www.tnemec.com/product/overview/?p=142&st=color>

### Technical Information

<http://www.tnemec.com/product/overview/?p=142>



DOORS FOR SPECIAL SERVICES

***Introducing...  
The Bilco PCM  
Pit and Vault Door***



***The Door Designed  
with the  
Precaster in Mind...***



## Quick, easy installation for you...

As a precaster, you are concerned with installation time. You're also concerned with giving your customers the smooth, easy operation a Bilco door provides. The new PCM does both. Installation is easier than 1, 2, 3. Just forget 2 and 3. Put the door in place on the form and make your pour. No fuss. No bother. No special forming required. The PCM frame provides the form for you.



**Frame depth designed to match slab thickness**



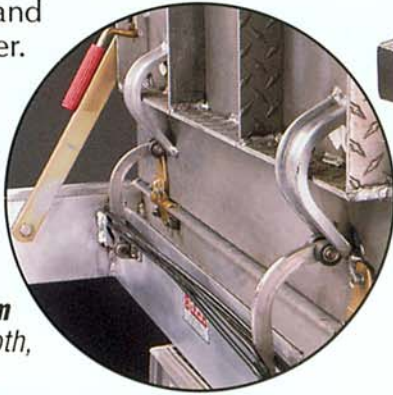
*The PCM Torsion/Cam design provides ease of operation through the entire arc of opening, and for safety acts as a check in retarding downward motion of the door.*



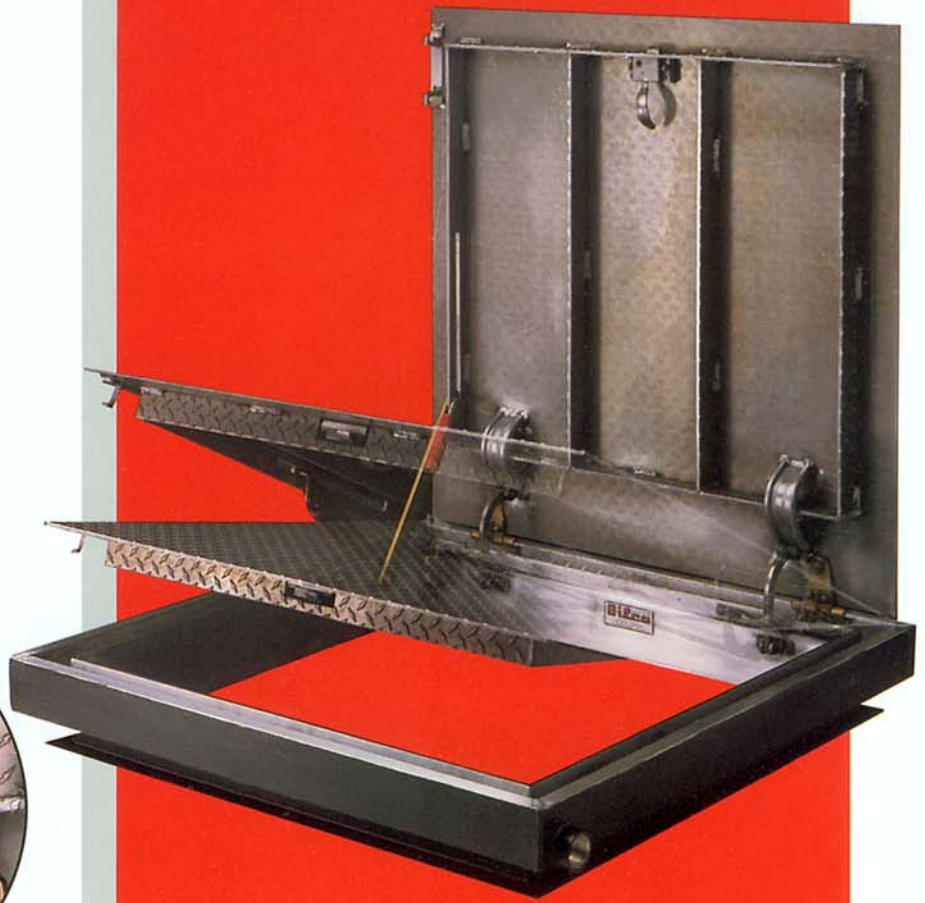
# Unmatched performance for your customer

The new PCM Torsion/Cam design assures your customers of a superbly balanced door through the entire arc of opening and closing, a most important safety and convenience feature. And customers will like the way the PCM door is designed to provide long, trouble-free service.

Quick, hassle free installation. Long service life. Smooth, easy operation. An unbeatable combination for both you and your customer.



**New Torsion/Cam System** for smooth, easy operation.

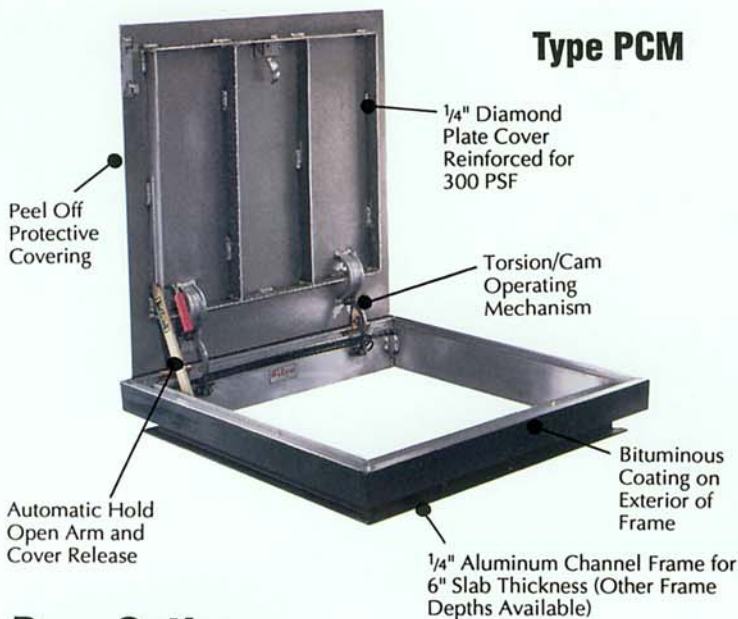


Bilco doors feature a covering for protection during the pouring process. ▶



▶ PCM door shown with Bilco LadderUP Safety Post for easier, safer ladder use.





## Door Options

### Locking and Latching Devices

Standard is a flush spring loaded snap lock operable from the outside by a removable handle and from below by a fixed turn handle. Locking and latching options are: a recessed padlock hasp covered by a hinged lid flush with surface, a cylinder lock with keyway protected by a threaded cover plug, lugs welded to the exterior door surface to receive a padlock, and a hinged padlock hasp on the exterior door surface.

### Stainless Steel Hardware

For installation in a highly corrosive environment, specify Type 316 stainless steel hinges and hold open arm. (All other hardware is stainless steel.)

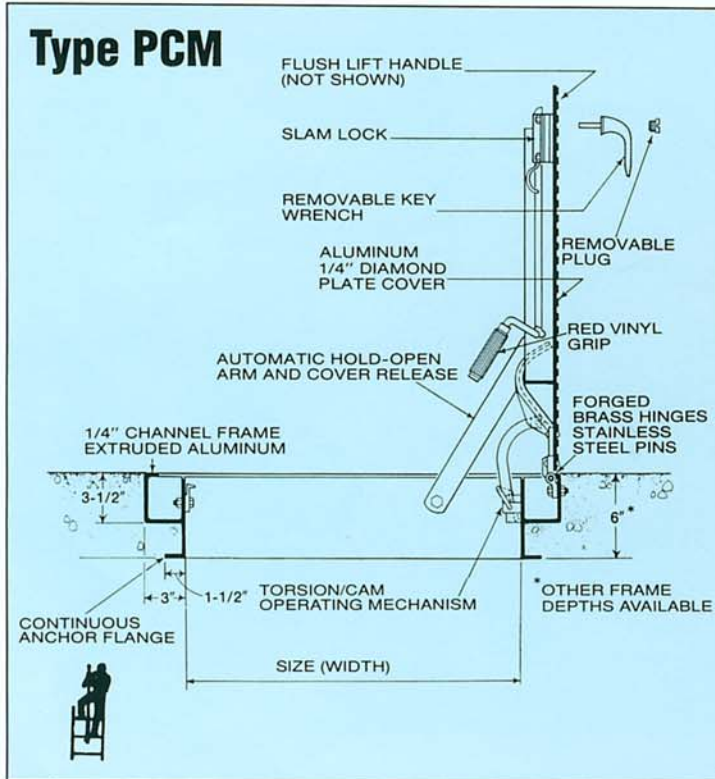
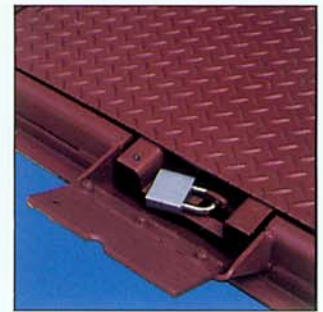
## Specifications Type PCM and Type PDCM\*

Access door shall be Type \_\_\_\_\_ as manufactured by The Bilco Company, New Haven, CT 06505. Door leaf shall be 1/4" aluminum 6061-T6 diamond pattern plate to withstand a live load of 300 pounds per square foot. The frame shall be 1/4" extruded aluminum 6063-T5 channel shaped to provide a drainage gutter and an overall depth of 6" for a 6" concrete slab thickness. (Specify desired frame depth if not 6".) A 1 1/2" pipe coupling shall be provided on the exterior vertical leg of the frame at the front right corner. Door(s) shall be equipped with heavy forged brass hinges with stainless steel pins and fasteners. A Type 316 stainless steel snap lock with removable handle shall be provided.

A stainless steel torsion bar mechanism, acting through cams, shall provide ease of operation through the entire arc of opening, and for safety act as a check in retarding downward motion of the door(s).

A heavy steel automatic hold open arm shall include a red vinyl grip for handy release. Arm shall be zinc plated and chromate sealed.

Aluminum shall be mill finish with bituminous coating applied to the exterior of the frame. Manufacturer shall provide peel off protective covering on the top surface of the door leaf and frame. Installation shall be in accordance with manufacturers instructions. Manufacturer shall guarantee against defects in material or workmanship for a period of five years.



Patent applied for

BILCO manufactures a broad line of quality steel and aluminum horizontal access doors, including doors reinforced for vehicle loading. All are designed and built to give your customers smooth, easy operation and long, trouble-free service. For information on the full line of BILCO pit and vault doors, ask for a copy of the "BILCO Quality Access Doors" catalog.

The Bilco Company, P.O. Box 1203, New Haven, CT 06505  
 Phone: (203) 934-6363, Fax: (203) 933-8478, www.bilco.com

Printed in U.S.A.

TYPE	SIZE		WT. LBS
	Width	Length	
PCM-1	2'0"	2'0"	68
PCM-2	2'6"	2'6"	81
PCM-3	3'0"	2'6"	91
PCM-4	3'0"	3'0"	107
PCM-5	3'6"	3'6"	156
PCM-6	2'6"	4'0"	135
PCM-7	3'0"	4'0"	153
PCM-8	2'6"	5'0"	158
PCM-9	3'0"	5'0"	169
PCM-10	3'0"	6'0"	197
PDCM-1*	4'0"	2'6"	157
PDCM-2*	4'0"	4'0"	167
PDCM-3*	4'0"	6'0"	236
PDCM-4*	5'0"	5'0"	242

\* Double Leaf

Since 1926. First in Design and Quality.





# Safety Products



Bil-Guard® Hatch Rail System



LadderUP® Safety Posts

**Bilco®**



# Bil-Guard® Hatch Rail System



Patented



**Self-Closing Gate Hinge**  
Ensures continuous protection



**Pivoting Mounting Sleeve**  
For installation flexibility



**Gate Latch**  
Locks gate in closed position

## **Bil-Guard®** *Hatch Rail System*

The Bil-Guard® is a fixed railing system that provides a permanent means of

fall protection for hatch openings. Tested and proven to meet and exceed OSHA fall protection standards (29 CFR 1910.23), the Bil-Guard® features an innovative attachment system that does not penetrate the roofing membrane, installs quickly and easily using basic tools, and does not require special training or certification for proper installation.

### **Standard Features and Benefits:**

- Corrosion-resistant construction carrying a 25-year warranty
- High-visibility safety yellow color
- Standard self-closing gate with automatic-latching mechanism
- Non-penetrating attachment
- Available in a number of standard and special sizes
- Fits all brands of roof hatches with capflashing
- Can be easily installed on new or existing hatches and fire vents



**Bilco®**

*Specifications, sizes and weights on back cover.*



Ladder·UP® Safety Post



LadderUP® Safety Posts provide easier, safer ladder access through roof scuttles, floor, vault, and

sidewalk doors, and manholes. This telescoping post permanently mounts to the top two rungs of any fixed ladder, providing a positive hand-hold and enabling the user to enter or exit an opening in an upright and balanced position.

**Standard Features and Benefits:**

- Adjustable mounting hardware accommodates virtually any ladder rung size or spacing
- Telescoping design is spring balanced for ease of operation
- Automatically locks in the fully raised position to provide the user with a firm and steady hand-hold
- Handy release lever allows the post to be easily lowered to its retracted position
- Available in four levels of corrosion resistance to provide many years of trouble free, dependable service



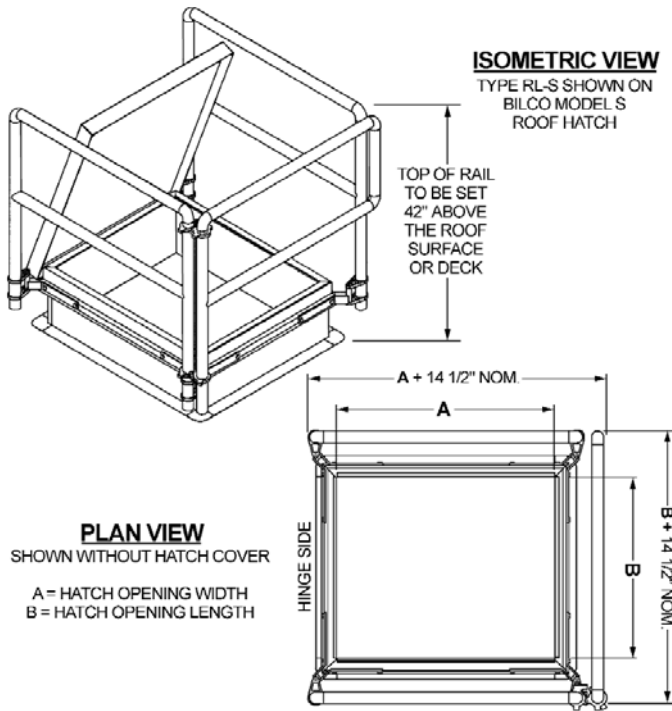
Installs easily on any fixed ladder

*Specifications, sizes and weights on back cover.*



# Safety Products

## Bil-Guard® Hatch Rail System



### Specifications

Posts and rails are pultruded from a fire retardant, fiberglass-reinforced polymer (FRP). FRP material has a molded-in, high visibility, safety yellow color and is treated with a UV inhibitor. Mounting brackets are fabricated from 1/4" thick hot dip galvanized steel. Gate hinges and post guides are constructed of 6063-T5 aluminum and torsion rod is Type 302 stainless steel. All fasteners are Type 316 stainless steel. Hatch rail system satisfies the requirements of OSHA 29 CFR 1910.23 and meets OSHA strength requirements with a safety factor of two. Manufacturer shall provide a 25-year warranty against defects in material and workmanship.

### Standard Model and Weights

The Bil-Guard Hatch Rail System is designed to fit all brands of roof hatches with capflashing. The table below provides railing system models and weights and includes standard Bilco roof hatch sizes and model numbers for easy cross-reference.

Roof Hatch		Bil-Guard Hatch Rail System			
Size (width x length)		Bilco Model	Model #	Shipping Weight	
inches	mm			lbs.	kg
36 x 30	914 x 762	S	RL-S	52	24
36 x 36	914 x 914	E	RL-E	52	24
48 x 48	1219 x 1219	F	RL-F	61	28
30 x 54	762 x 1372	NB	RL-NB	60	27
30 x 96	762 x 2438	L	RL-L	76	35

Also available for automatic fire vents and in special sizes. Consult Bilco for more information.

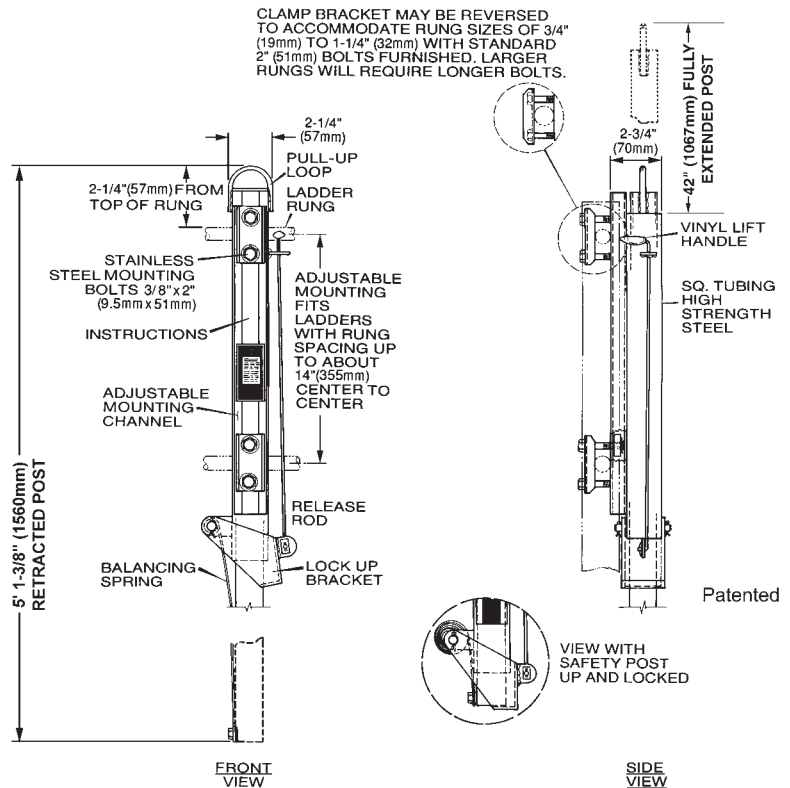
## LadderUP® Safety Post

### Specifications

Install on fixed ladder(s) below hatch cover(s), LadderUP® safety post Model \_\_\_ as manufactured by The Bilco Company. Device shall be (refer to chart for material/finish\* of model specified). It shall be designed with a telescoping tubular section that locks automatically when fully extended. Upward and downward movement shall be controlled by a stainless steel spring balancing mechanism. Unit shall be completely assembled with fasteners for securing to the ladder rungs in accordance with the manufacturer's instructions. \* If installation is to be in corrosive atmosphere, specify Model LU-2, LU-3 or LU-4 as conditions warrant.

### Standard Model and Weights

Model	Material/Finish	Weight	
		lbs.	kg.
LU-1	Steel, yellow powder coat	24	11
LU-2	Steel, hot dip galvanized	24	11
LU-3	Type 304 Stainless Steel	24	11
LU-4	Aluminum, mill finish	14	7

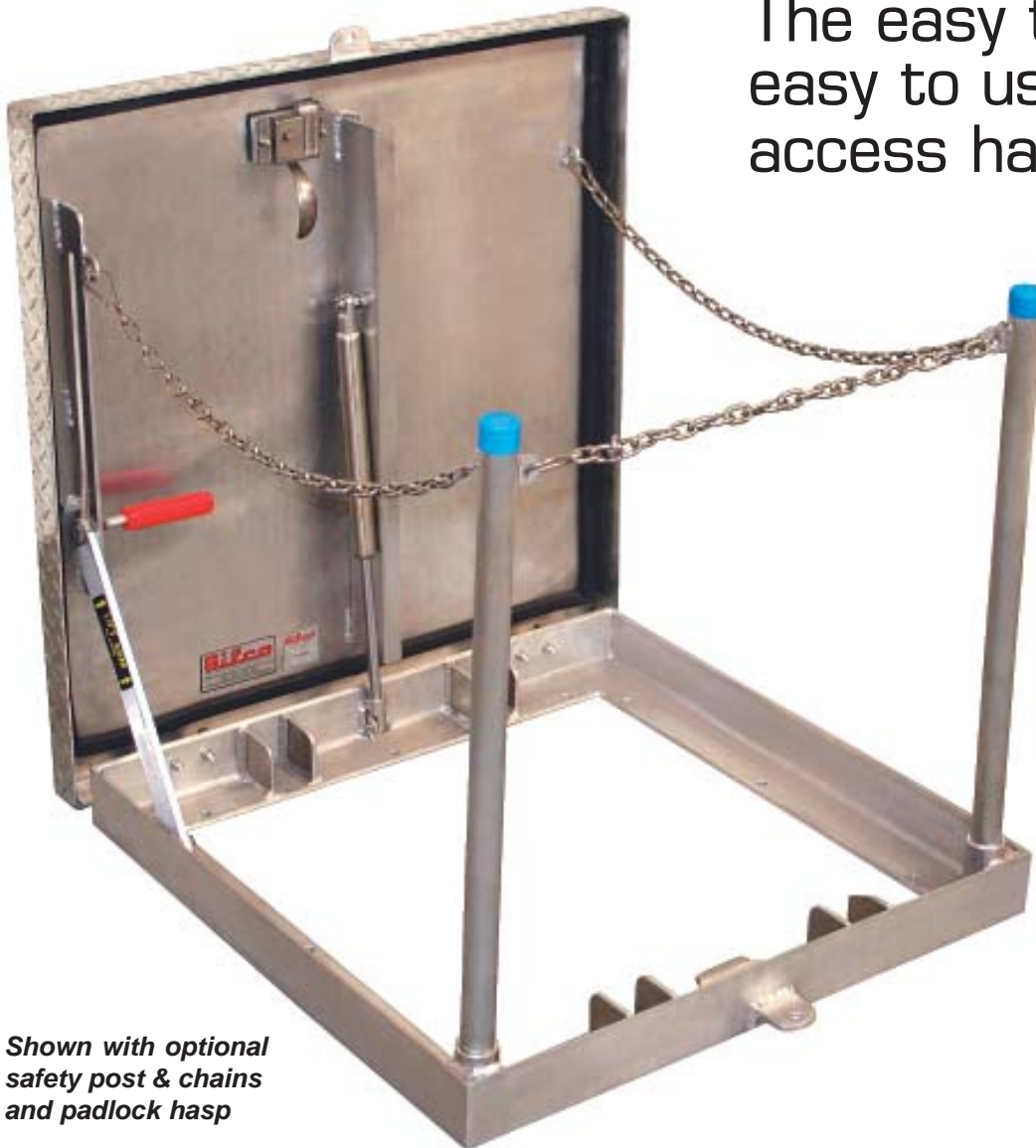


**The Bilco Company**  
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# SURFACE MOUNT ACCESS DOOR

The easy to install,  
easy to use  
access hatch



*Shown with optional  
safety post & chains  
and padlock hasp*

Bilco's **Type SM** Surface Mounted door provides a cost effective solution for access to underground vaults that do not require the use of a flush-mounted door. The door features a concealed internal mounting flange that makes installation easy and secure. Simply position the door over the vault opening and bolt it into place.

The Type SM door is also ideal for applications where the infiltration of contaminants is a concern. It's gasketed, over-lapping cover design sheds water and prevents debris and other pollutants from entering the opening.

## STANDARD FEATURES

- Automatic Hold Open arm
- Lift Assistance for ease of operation
- Available in mill finish aluminum construction



Weathertight perimeter gasketing



Stainless steel slam lock



Internal surface mounting flange

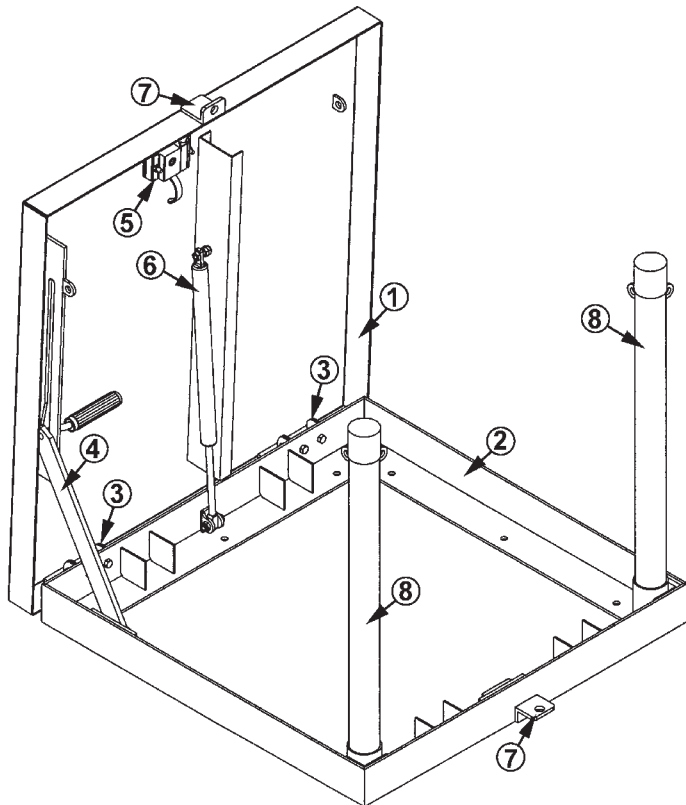


Concealed stainless steel hinges



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# SURFACE MOUNT ACCESS DOOR



- 1. Diamond plate cover
- 2. Angle Frame
- 3. Stainless Steel Pintle Hinges
- 4. Automatic Hold Open Arm  
[optional stop chain available]
- 5. Stainless Steel Slam Lock
- 6. Gas Strut Lifting Mechanism
- 7. Optional Exterior Padlock Hasp
- 8. Optional Safety Post & Chains  
[chains not shown for clarity]

## STANDARD SIZES & WEIGHTS

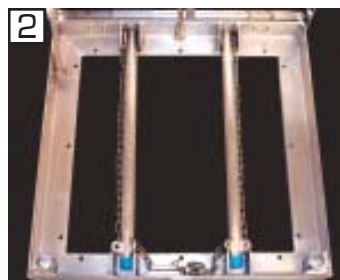
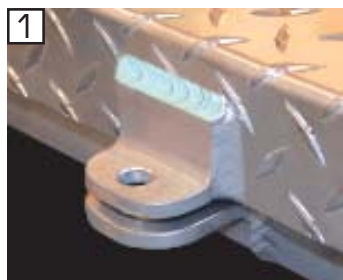
SIZE [width x length]		MODEL NUMBER	WEIGHT	
inches	mm		lbs.	kg.
24 x 24	610 x 610	SM-1	61	28
30 x 30	762 x 762	SM-2	71	32
36 x 30	914 x 762	SM-3	78	35
36 x 36	914 x 914	SM-4	86	39
42 x 42	1067 x 1067	SM-5	99	45

## PRODUCT SPECIFICATIONS

- Material:** 1/8" [3mm] aluminum plate cover and 3/16 [5mm] aluminum angle frame
- Cover:** Diamond-pattern tread plate reinforced for 105 psf [513 kg/m<sup>2</sup>] live load.
- Frame:** 3/16" x 3" x 3" [5mm x 76mm x 76mm] angle frame with internal mounting flange and 7/16" [11mm] diameter anchor holes.
- Gasket:** Extruded EPDM rubber gasket permanently adhered to cover.
- Hinges:** Heavy-duty, stainless steel pintle hinges with 3/8" [9.5mm] type 316 stainless steel hinge pins.
- Latch:** Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. Latch release is protected by a flush, gasketed, removable screw plug. [For added security, specify: full welded exterior padlock hasp].
- Lift Assistance:** Gas strut lifting mechanism with powder-coat finish. Automatic hold-open arm with grip handle release.
- Finish:** Mill Finish aluminum
- Hardware:** Type 316 stainless steel unless otherwise specified.

## OPTIONAL FEATURES

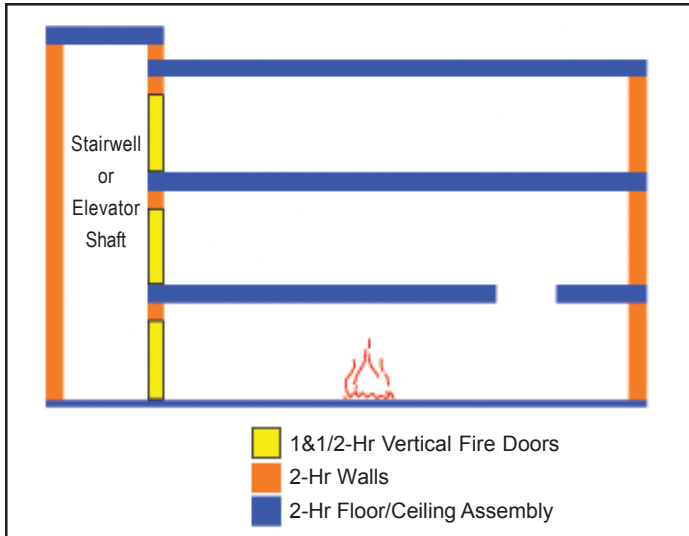
1. Fully welded padlock hasp allows the areaway to be secured against intrusion.
2. Safety posts & chains provide areaway fall protection when the cover is in the open position [shown in stored position].
3. A stainless steel stop chain can be specified in place of the hold open arm and gas strut lifting mechanism.



*The Bilco Company, a world leader in the design and manufacture of specialty access products, is pleased to offer a series of technical bulletins designed to address issues related to access products within the construction industry.*

# Performance Criteria for a Floor Fire Door

*Flush-mounted floor doors are widely used in buildings for access between floors. As fire protection standards become more stringent, code officials and specifiers have identified the need for a floor door with a fire rating that matches the floor-ceiling assembly. This bulletin examines the product performance criteria for this demanding application.*



## ASTM E152 NFPA252

### Fire Test of Door Assemblies in Wall Systems

- Test Specimen Mounted Vertically
- Heat Transmission Not Considered -Only Distortion Limits
- No Live Load Requirement
- Doors May Carry Lesser Rating than Wall System (It is assumed that no combustibles will be stored against vertical fire doors)
- Test Will Evaluate:
  - Structural Integrity

## ASTM E119 NFPA251

### Fire Test of Floor-Ceiling Assemblies

- Test Specimen Mounted Horizontally
- Heat Transmission Critical ... (250°F average above ambient, 325°F maximum above ambient at a single thermocouple)
- Tested Under Maximum Live Load Expected
- Penetrations Must Maintain Heat Transmission Performance of Floor-Ceiling Assembly (To prevent ignition of combustibles on the topside)
- Test Will Evaluate:
  - Structural Integrity
  - Thermal Protection

As the diagram illustrates, when a fire penetrates a vertical fire door into a stairwell or elevator shaft, the fire would need to breach another fire door to endanger another floor. Conversely, if a fire penetrates a floor-mounted fire door, two floors are immediately endangered. Thus the severity of the E119 test is demanded when evaluating a floor fire door.

Vertical fire doors are common place in modern building construction. Designed for fire protection of openings in wall systems, these doors are generally tested in accordance with ASTM E152 (NFPA 252) and are UL Listed. Essentially, vertical fire doors serve only to block the passage of flames between lateral compartments or rooms within the building.

A questionable area exists in that if combustibles (ie: furniture, drapery, supplies, or even a person's clothing) were to be stored up against, or were to come in contact with a vertical door during a fire, heat radiation alone through the door could cause such items to ignite, allowing the fire to spread from room to room. ASTM E152 (NFPA 252) *assumes* that no combustibles will be stored against a vertical fire door, allowing it to carry a lesser rating than the wall system in which it is installed.

Since fire will aggressively seek an upward (as opposed to lateral) path within a building, a potentially more vulnerable condition is created when the floor-ceiling assembly is penetrated to allow for necessary access to the floor above or below.

Penetrations in floor-ceiling assemblies must perform (in a fire protection sense) as well as the rated deck to ensure containment of the fire. Since the door is flush mounted in the floor, it is *not reasonable* to assume that combustible items will not be located near or stored directly on the door. Heat transmission becomes a critical issue. For this reason, the floor fire door must meet a significantly higher performance standard than its vertical counterpart.

Therefore ASTM E152 (NFPA 252), the vertical fire door standard, is not appropriate for floor fire doors. To be effective, the floor fire door must conform to ASTM E119 (NFPA 251).

## What to look for . . .

- **UL Listed**
- **Tested in accordance with ASTM E119**
- **Limits on Heat Transmission**
- **Automatic Closing and Self-Latching**
- **Smooth, Easy Operation**



# No Matter What Your Application...



Patent Pending

## The VersaMount™ Has You Covered

Bilco's new VersaMount™ access hatch will expand your installation options while providing your customer with ease of operation, weather-tight performance, and years of maintenance-free service.

Whether your application



*Bilco's VersaMount access hatch is available for immediate shipment in four industry-standard sizes.*

Job-Built  
Wood Curbs



Job-Built  
Concrete Curbs



Existing Irregularly  
Sized Curbs



Job-Built/  
Prefab Metal Curbs



Over Existing  
Scuttle Curbs



involves new construction, retrofit, or replacement, the VersaMount's innovative anchor clip system and versatile frame design will help complete the job efficiently, professionally, and permanently.

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or log on to [www.bilco.com](http://www.bilco.com)

# Bilco's VersaMount™ Access Hatch

The Bilco VersaMount™ access hatch combines the ease of operation, weathertight performance, and the long service life of a quality Bilco roof hatch, with the added advantage of enhanced installation flexibility. The product features an innovative mounting system and complete installation instructions for fast, secure, professional installation in a variety of applications involving job-built and existing curbs, as well as curb-less openings. The VersaMount access hatch is available in steel, aluminum and stainless steel, in three industry-standard sizes plus a special metric size.

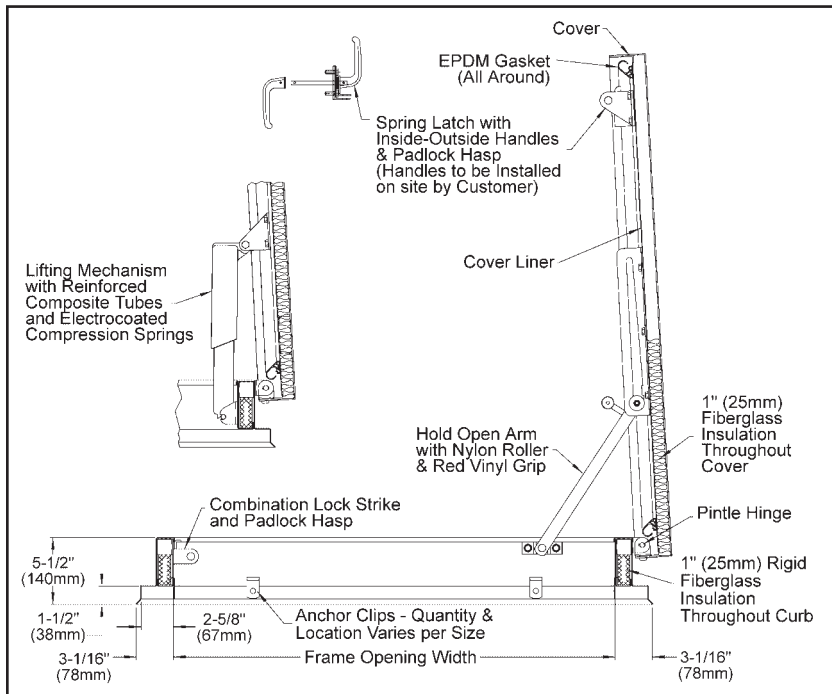
## SPECIFICATIONS:

Access hatch shall be Bilco Model# \_\_\_\_\_ size \_\_\_\_\_ as manufactured by The Bilco Company in accordance with the following specifications:

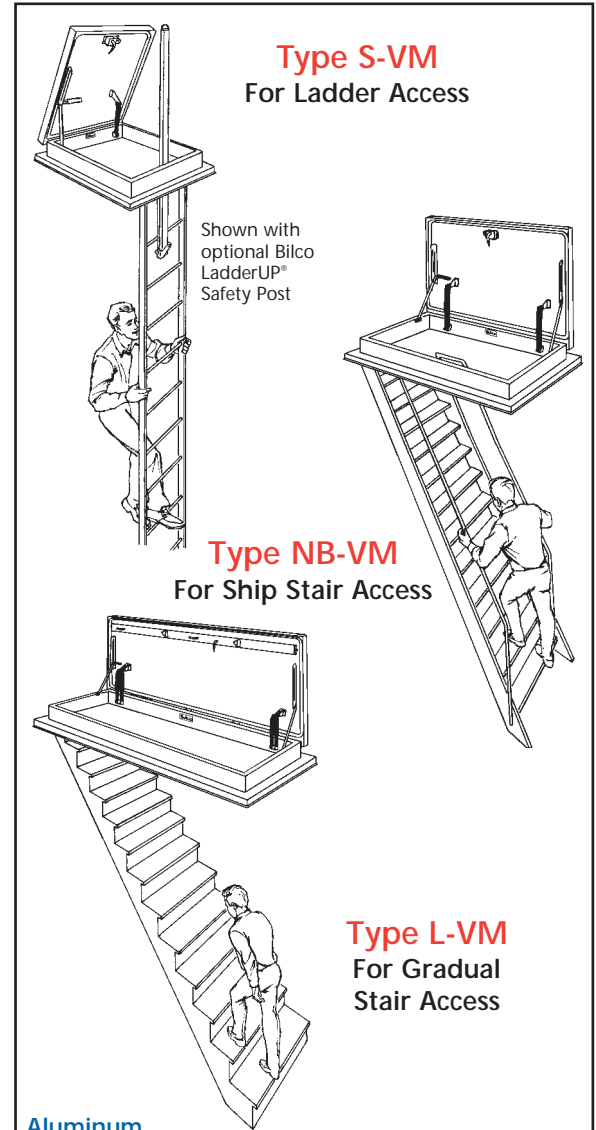
- Material & Finish:** Cover and frame are 14 ga. (1.9mm) paint bond galvanized steel / red oxide primer [or 11 ga. (2.3mm) aluminum / mill finish] [or 14ga. (1.9mm) Type 304 stainless steel / sand blast finish]. Hardware components are zinc-plated and chromate sealed, unless otherwise noted.
- Cover:** Breakformed, hollow-metal design with 1" (25mm) concealed insulation, 3" (76mm) beaded, overlapping flange, fully welded at corners, and internally reinforced for 40 psf (195 kg/m<sup>2</sup>) live load.
- Frame:** Breakformed, hollow-metal design with 1" (25mm) concealed insulation, 2-5/8" (67mm) mounting flange and 1-1/2" (38mm) apron, fully welded at corners. Stainless steel anchor clips are included.
- Gasket:** Specially designed, EPDM rubber gasket, permanently adhered to the cover.
- Hinges:** Heavy pintle hinges with 3/8" (10mm) solid stainless steel hinge pins.
- Latch:** Spring latch with inside and outside handles and padlock hasps.
- Lift Assistance:** Electrostatically coated compression springs enclosed in self-lubricating composite cylinders. Automatic hold-open arm with 1" (25mm) comfort grip handle.
- Warranty:** Five (5) years from date of purchase covering defects in material and workmanship.

*Note: The VersaMount access hatch installs on conventional built-up and single-ply roofs when a job-built wood curb is provided by the installer in accordance with established roofing practice.*

## DETAILS:



## STANDARD SIZES AND WEIGHTS:



### Aluminum

Size	Model #	Shipping Weight
3'0" X 2'6" (914 x 762 mm)	S-50VM	86 lbs (39kg)
2'6" X 4'6" (762 x 1372 mm)	NB-50VM	100 lbs (46kg)
2'6" X 8'0" (762 x 2438 mm)	L-50VM	178 lbs (81kg)
1m X 1m	EW-50VM	90 lbs (41kg)

### Steel

Size	Model #	Shipping Weight
3'0" X 2'6" (914 x 762 mm)	S-20VM	152 lbs (70kg)
2'6" X 4'6" (762 x 1372 mm)	NB-20VM	180 lbs (82kg)
2'6" X 8'0" (762 x 2438 mm)	L-20VM	320 lbs (145kg)
1m X 1m	EW-20VM	170 lbs (77kg)

### Stainless Steel

Size	Model #	Shipping Weight
3'0" X 2'6" (914 x 762 mm)	S-90VM	180 lbs (82kg)
2'6" X 4'6" (762 x 1372 mm)	NB-90VM	195 lbs (89kg)
2'6" X 8'0" (762 x 2438 mm)	L-90VM	352 lbs (160kg)
1m X 1m	EW-90VM	187 lbs (85kg)



Since 1926

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