

Bilco®



**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 visiting our download center on www.bilco.com.

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

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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

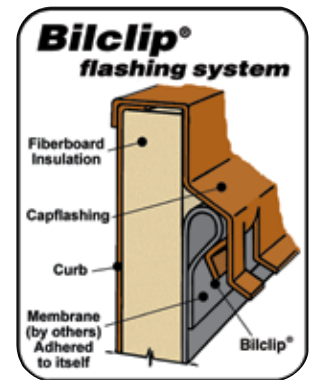
- Banks
- Prisons
- Factories
- Fast Food Restaurants
- Gymnasiums
- Hospitals
- Hotels
- High-Rise Housing
- Office Buildings
- Manufacturing Plants
- Schools
- Shopping Centers
- Storage Facilities
- Distribution Depots
- Warehouses

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 pre-punched capflashing to receive the Bil-Guard[®] 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.

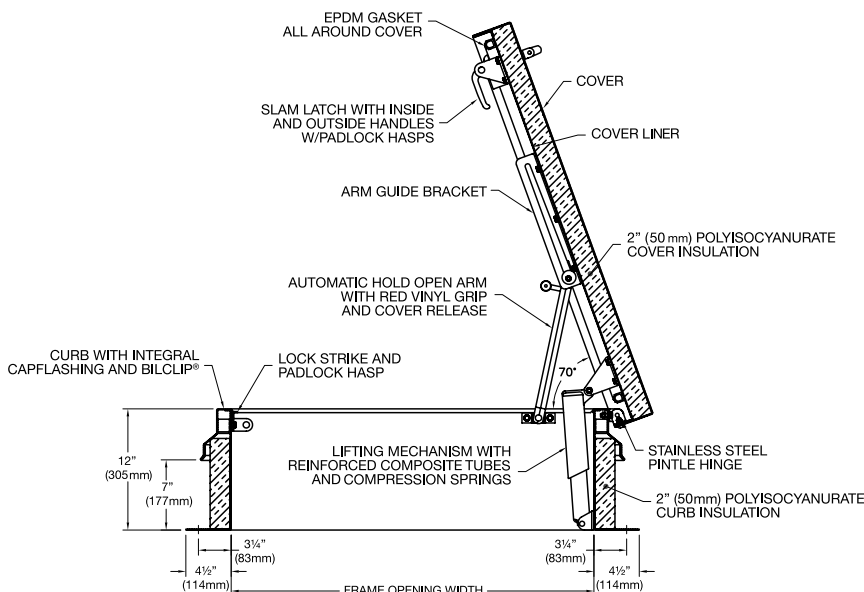


Available in
Enhanced
Performance
Design

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

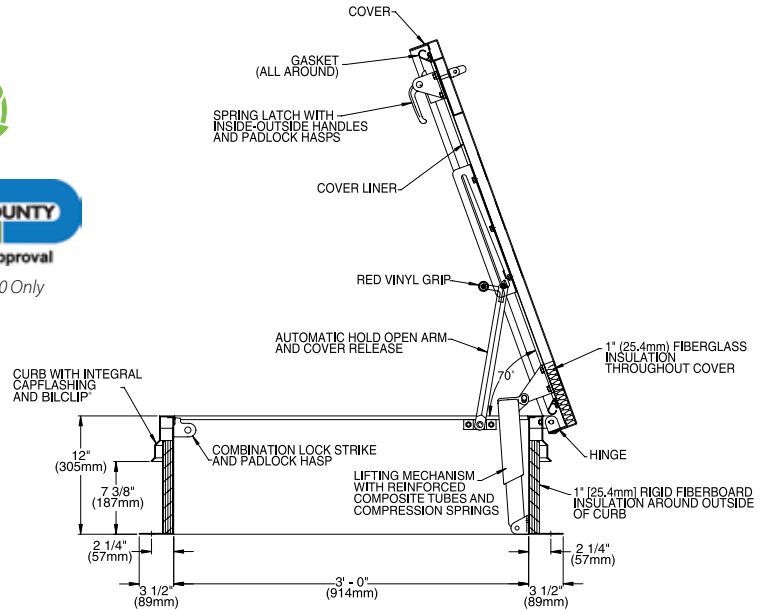


Type L-50T

Type S, Type E Ladder Access



Type S Shown



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/m²) 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

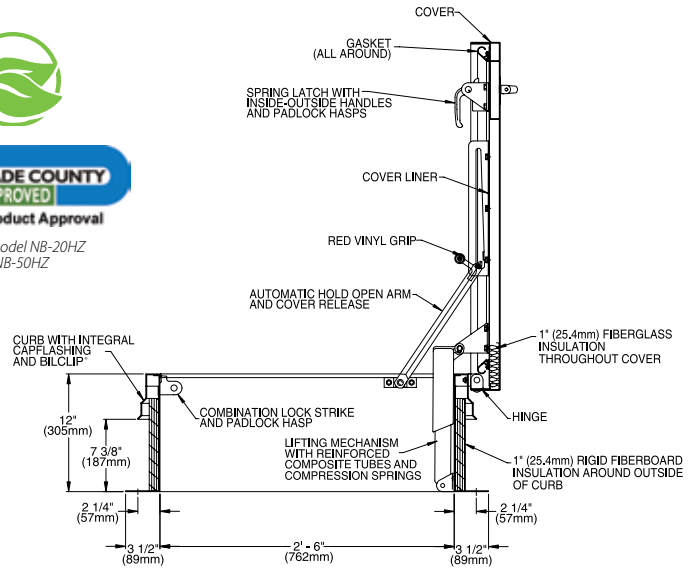


Standard Sizes and Weights

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/m²) 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 (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

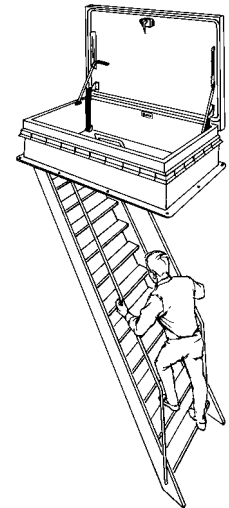
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

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

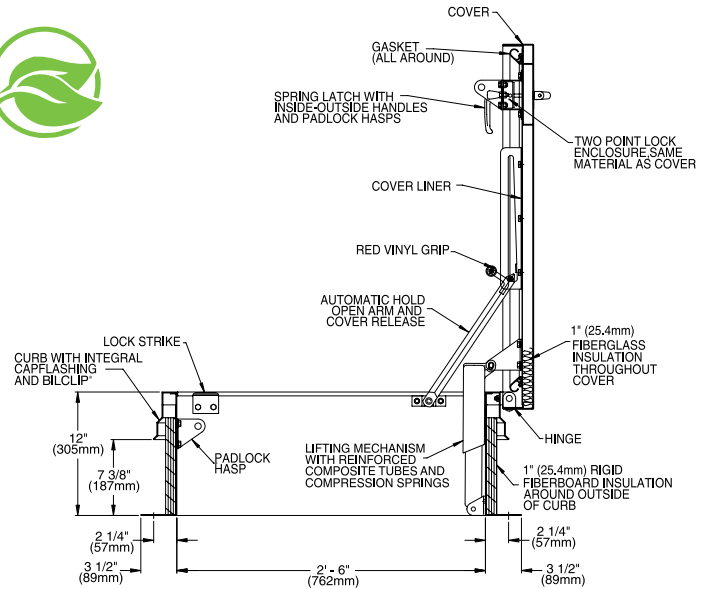


Standard Sizes and Weights

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/m²) 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

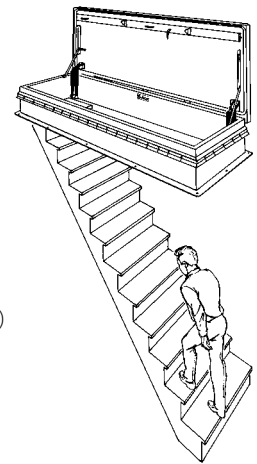
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

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

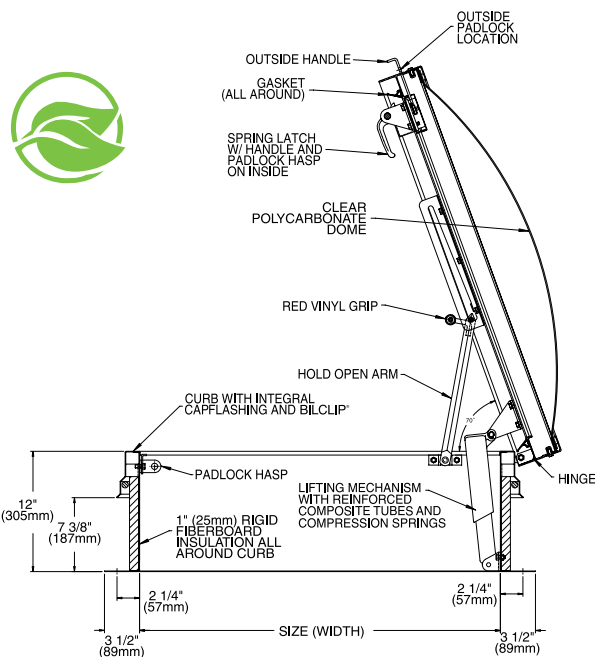


Standard Sizes and Weights

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.



Standard Sizes and Weights

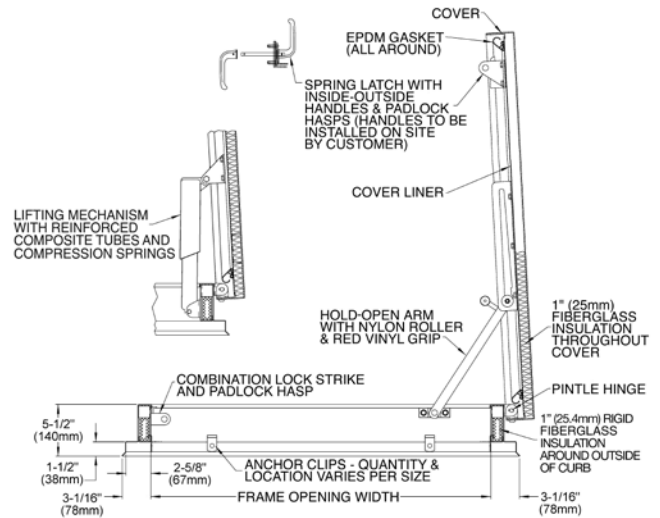
SIZE		ALUMINUM W/ SKYLIGHT					
		SINGLE DOME			DOUBLE DOME		
(width x length)		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	GS-50	115	52	MGS-50	135	61



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/m²) 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

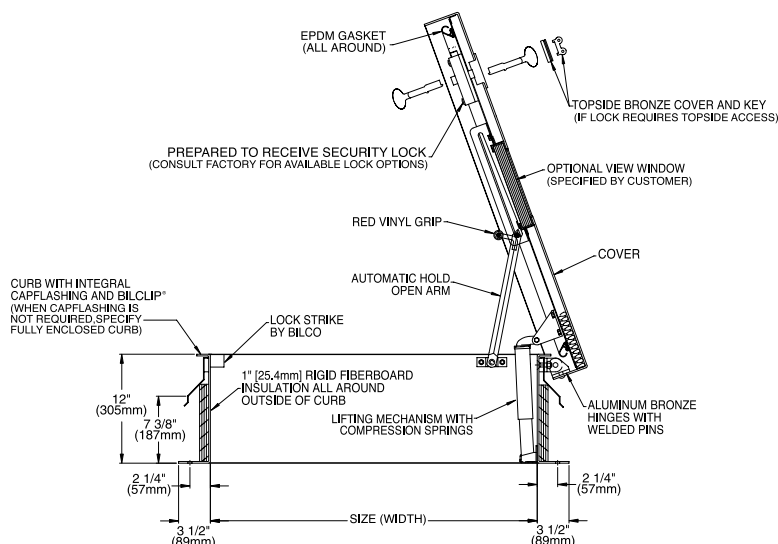
SIZE		STEEL			ALUMINUM			STAINLESS STEEL		
(width x length)		Model #	Weight		Model #	Weight		Model #	Weight	
inches	mm		lbs.	kg.		lbs.	kg.		lbs.	kg.
36 x 30	914 x 762	S-20VM	152	70	S-50VM	86	39	S-90VM*	152	70
30 x 54	762 x 1372	NB-20VM	180	82	NB-50VM	100	46	NB-90VM*	180	82
30 x 96	762 x 2438	L-20VM	320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



Optional Themec finish shown



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/m²) 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

Brazeformed, 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/m²) 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

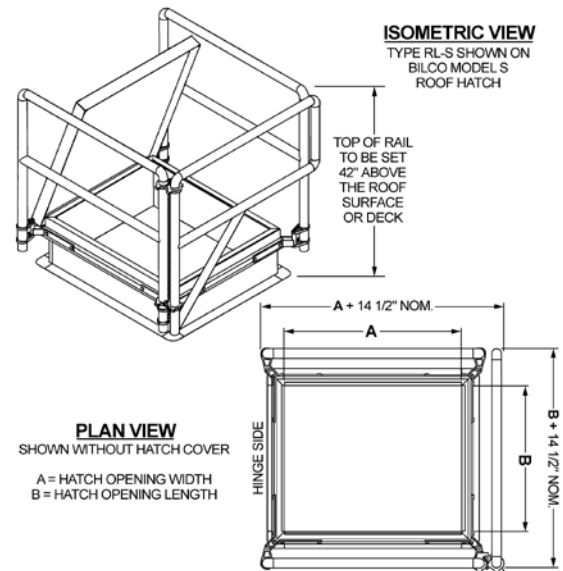
Bil-Guard® Hatch Rail System

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

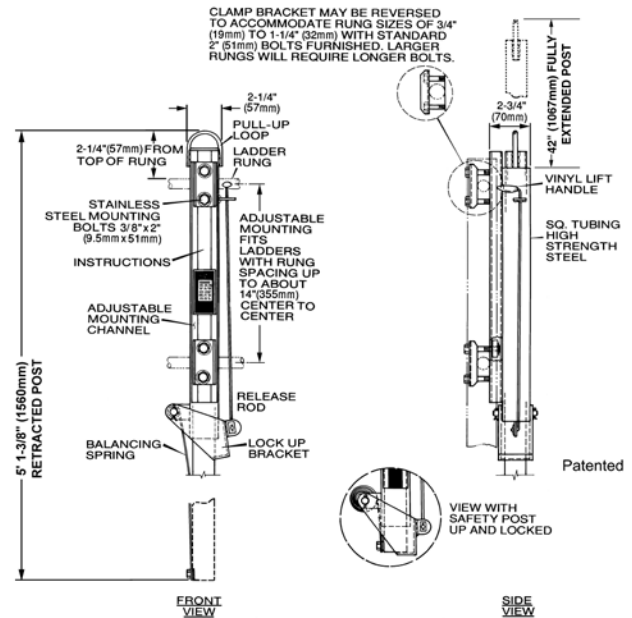


Pivoting Mounting Sleeve
For installation flexibility



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.



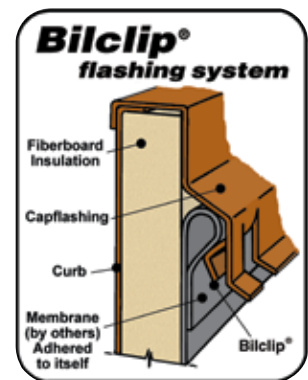
Automatic Smoke Vents protect property and aid firefighters in bringing a fire under control by removing smoke, heat, and gases from a burning building. Smoke vents are ideally suited for large expanses of unobstructed space such as factories, warehouses, auditoriums, and retail facilities.

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

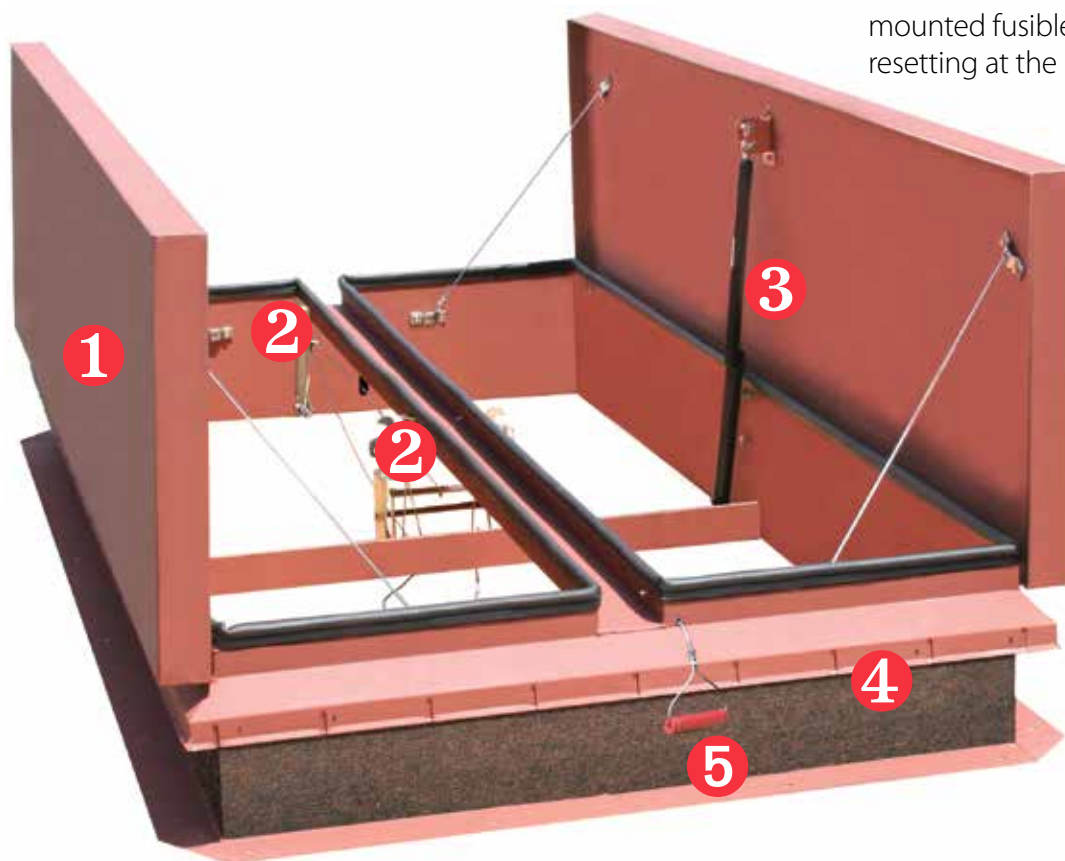
- Increased evacuation time and decreased risk of smoke inhalation and damage
- Enhanced visibility to allow firefighters to quickly locate the fire
- Protection against secondary ignitions and lateral fire spread
- Exhausting of noxious and potentially explosive fumes
- Structure protection from damaging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

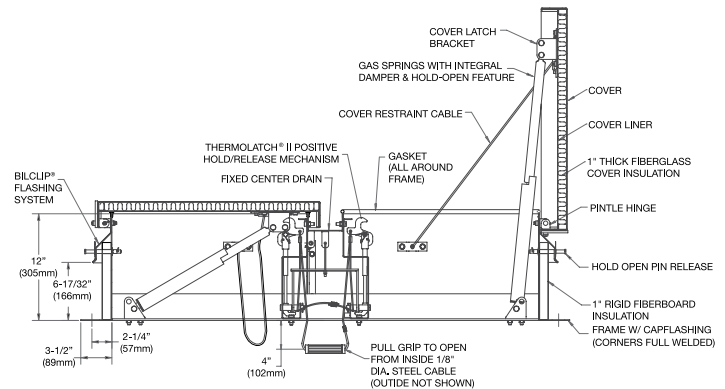
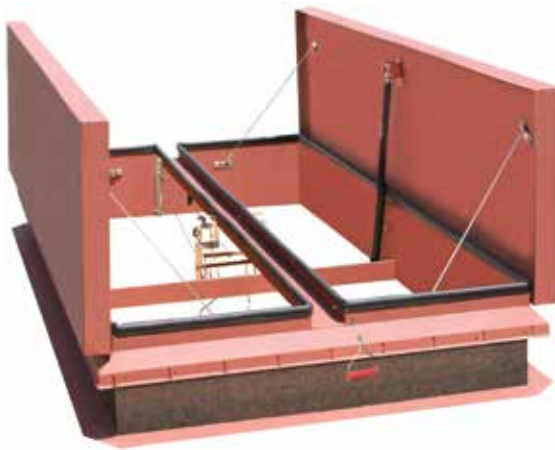


3. Gas springs open covers against a 10 psf (49 kg/m²) snow/wind load and integral dampers ensure a controlled rate of operation. Covers automatically lock in the open position upon vent activation. (Note: Single leaf models are supplied with compression spring operators and shock absorbers.)
4. All 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/m²) 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/m²) 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/m²) 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 [†]	710	322	DSH60120B [†]	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

[†] This size has 2" thick covers with 2" of insulation. * This size has four covers.



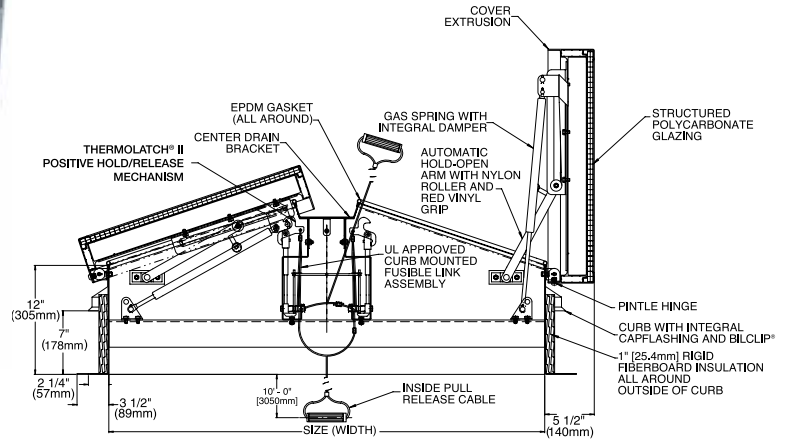
The Lumivent® Double Leaf – Daylighting

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/m²) 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/m²) 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/m²) 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

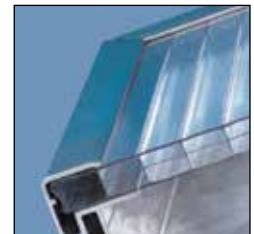
UL-listed. Covers with 4:12 slope to comply with International Building Code Requirements (2012 IBC 2610.3)

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



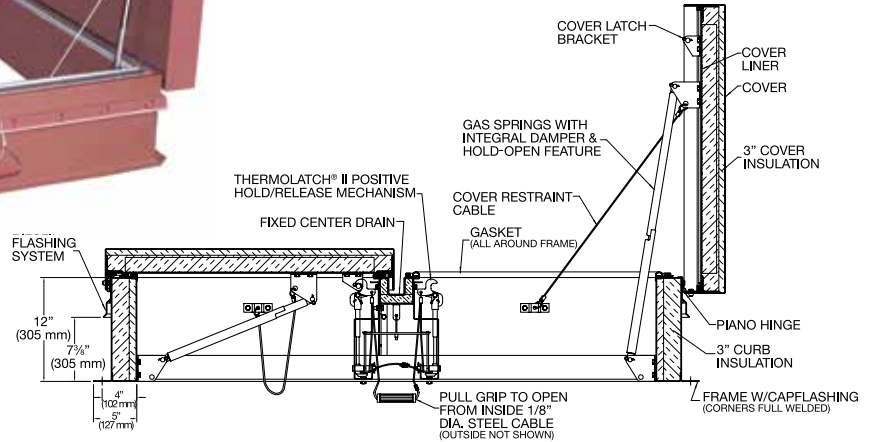
Standard Sizes and Weights

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

† This size has four covers.

*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.

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/m²) 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/m²) 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/m²) 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.



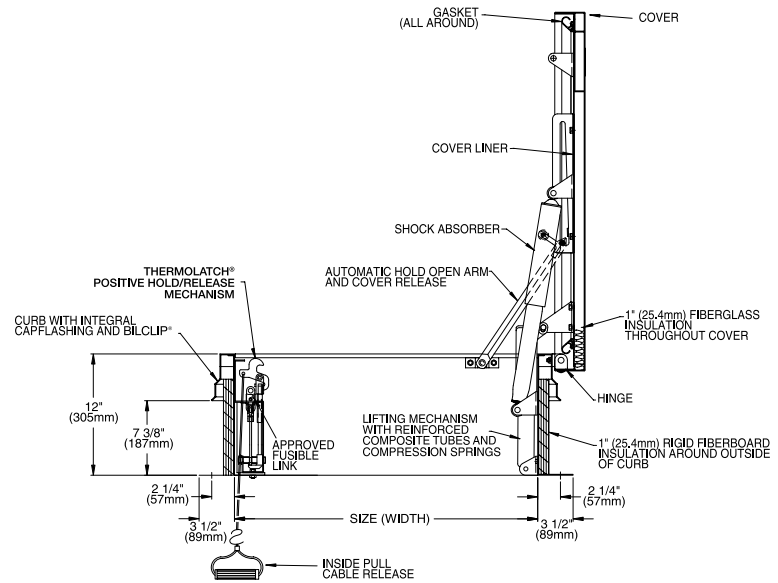
Standard Sizes and Weights

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/m²) 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/m²) 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/m²) 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 Thnemec® 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/ft² and 30 lb/ft² (122 kg/m² and 146 kg/m²) 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.



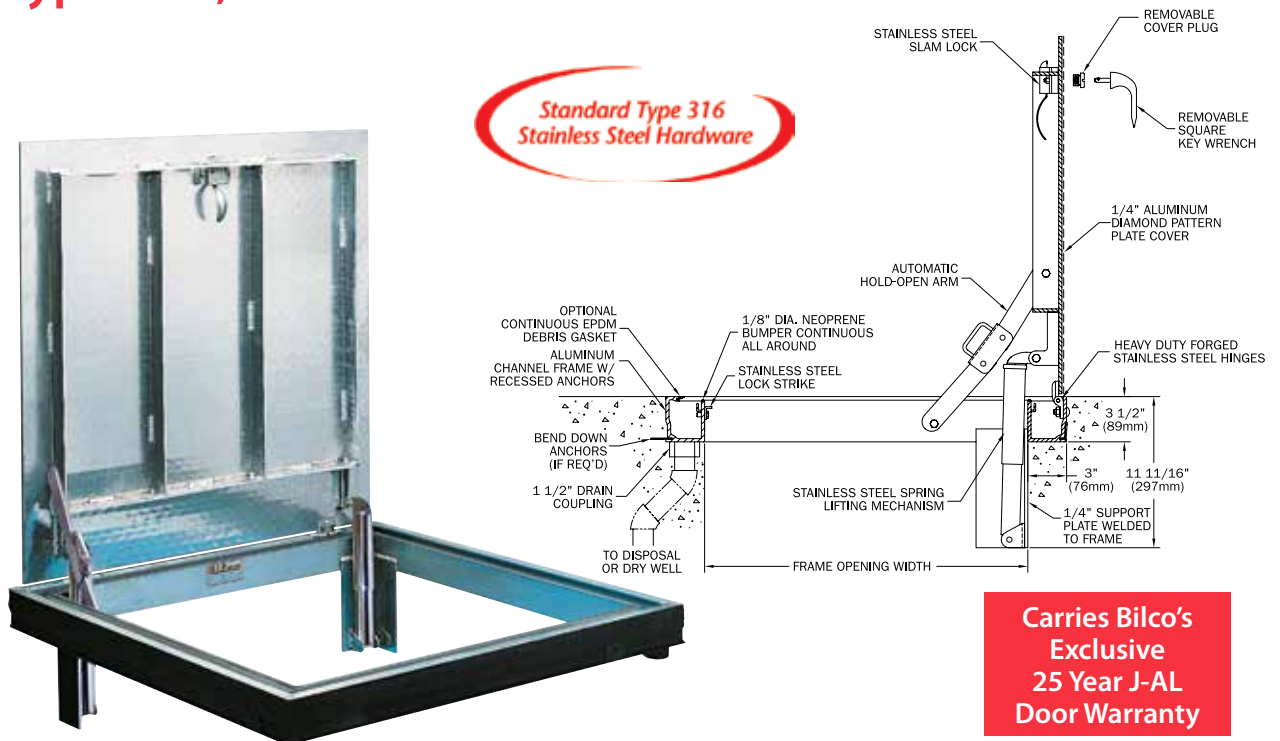


Type J-AL Door shown
with channel frame

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, J-DAL Aluminum Channel Frame Door



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/ft² (1464 kg/m²) live load. Features standard Type 316 stainless steel hardware and a versatile anchoring system for ease of installation.

Specifications:

Material

1/4" (6.35mm) cover and extruded aluminum frame

Cover

Diamond-pattern tread plate reinforced for 300 psf (1464 kg/m²) 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

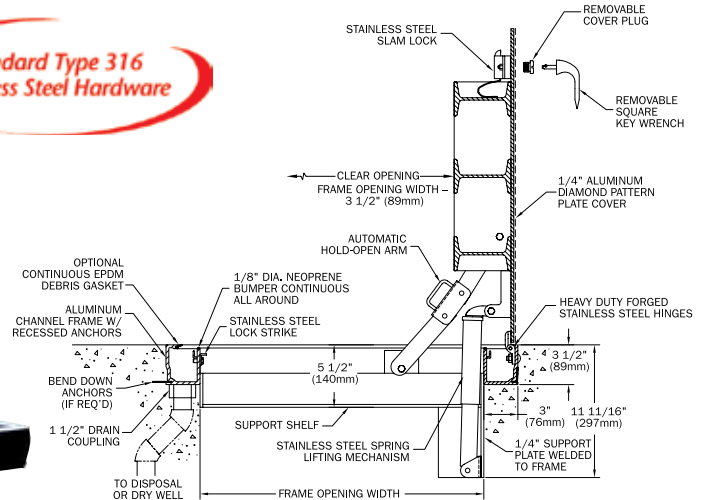
Models with "D" in the Model # indicate double leaf configuration



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



Standard Type 316
Stainless Steel Hardware



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

1/4" (6.35mm) cover and extruded aluminum frame

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

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

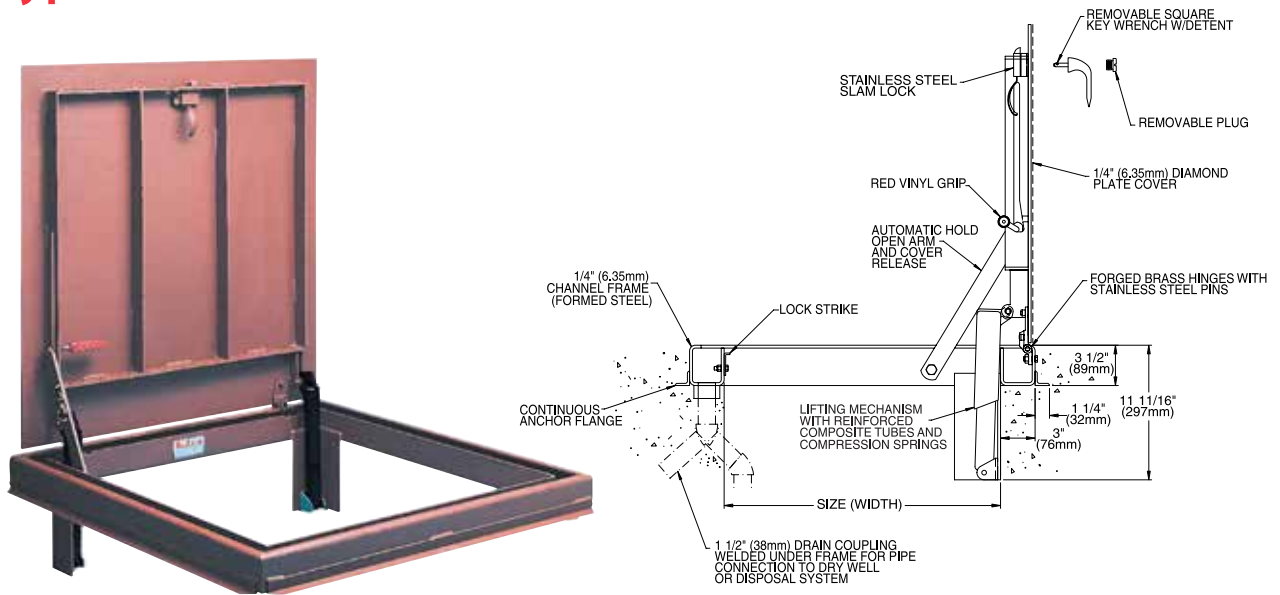


Standard Sizes and Weights

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/ft² (1464 kg/m²) 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/m²) 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.



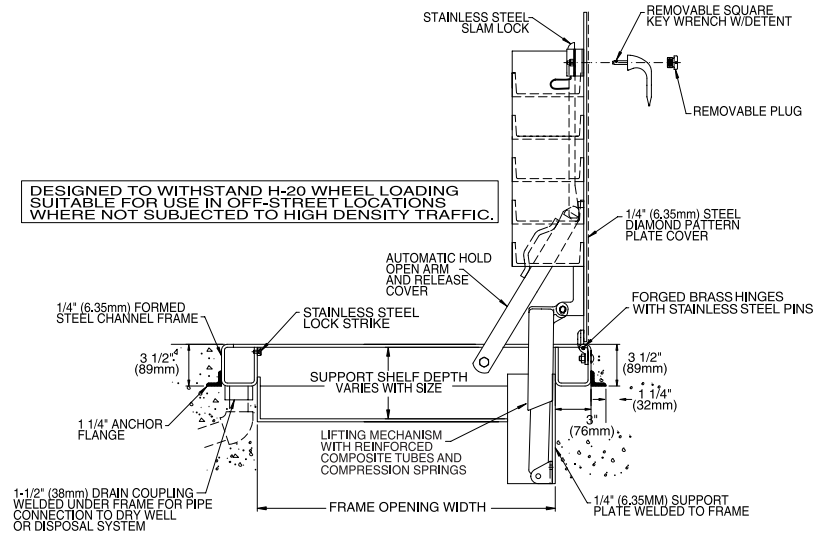
Standard Sizes and Weights

SIZE		STEEL		
(width x length)		Model #	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.

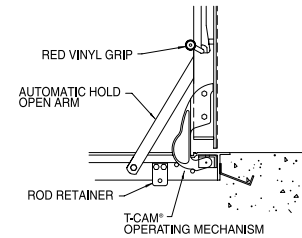
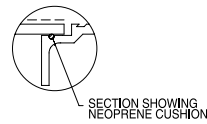
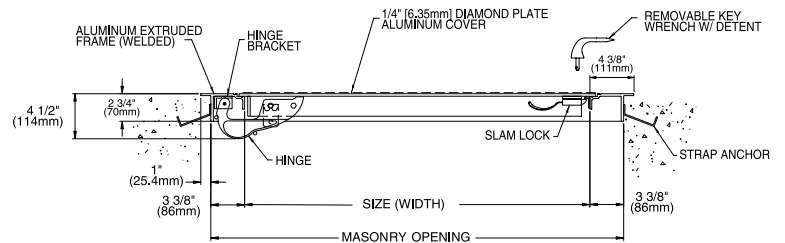


Standard Sizes and Weights

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/ft² (732 kg/m²) live load. Features zinc plated and chromate sealed hardware, concealed hinges and the T-CAM® lifting system for ease of operation.

Specifications:

Material

1/4" (6.35mm) cover and extruded aluminum frame

Cover

Diamond-pattern tread plate reinforced for 150 psf (732 kg/m²) 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

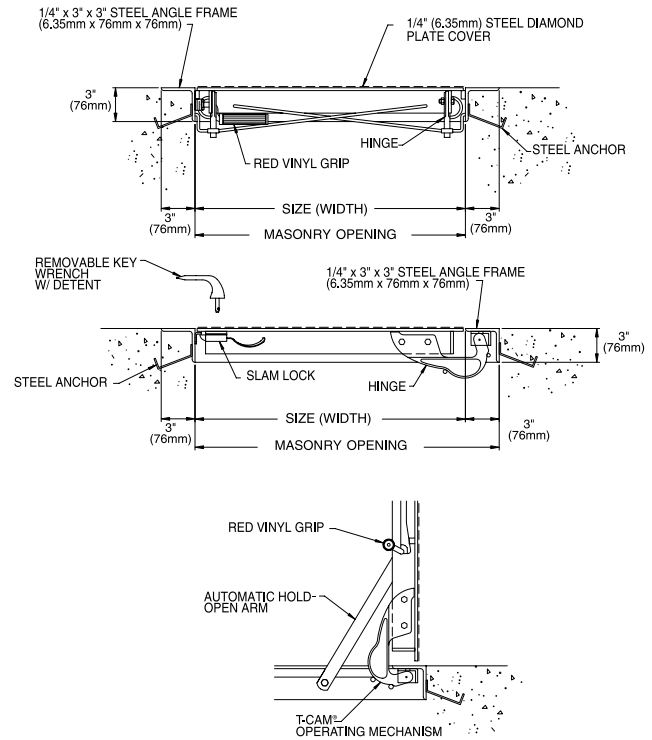
Standard Sizes and Weights

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/ft² (732 kg/m²) 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) steel

Cover

Diamond-pattern tread plate reinforced for 150 psf (732 kg/m²) 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

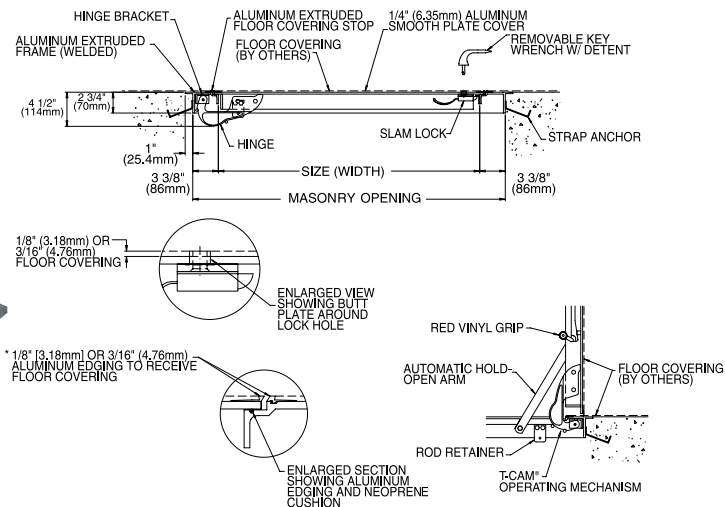
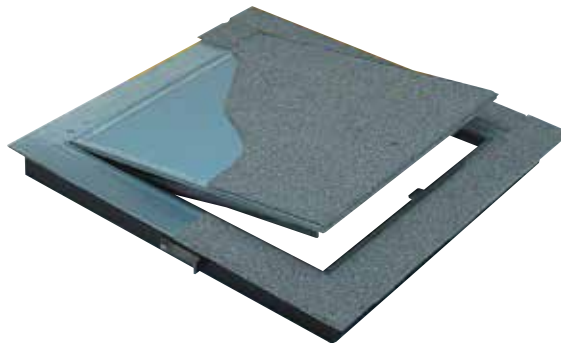
Standard Sizes and Weights

SIZE		STEEL		
(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

1/4" (6.35mm) cover and extruded aluminum frame

Cover

Smooth plate reinforced for 150 psf (732 kg/m²) 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

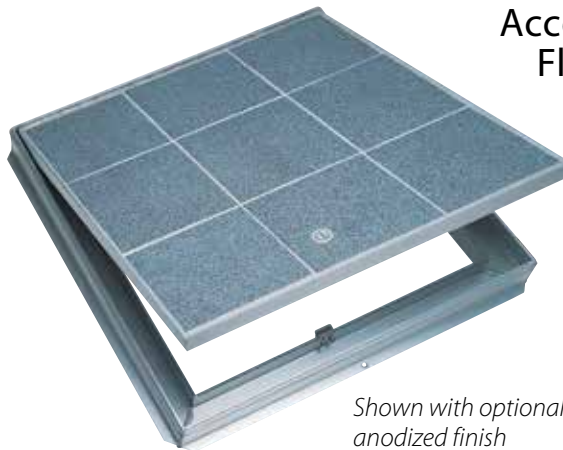
Standard Sizes and Weights

SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
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

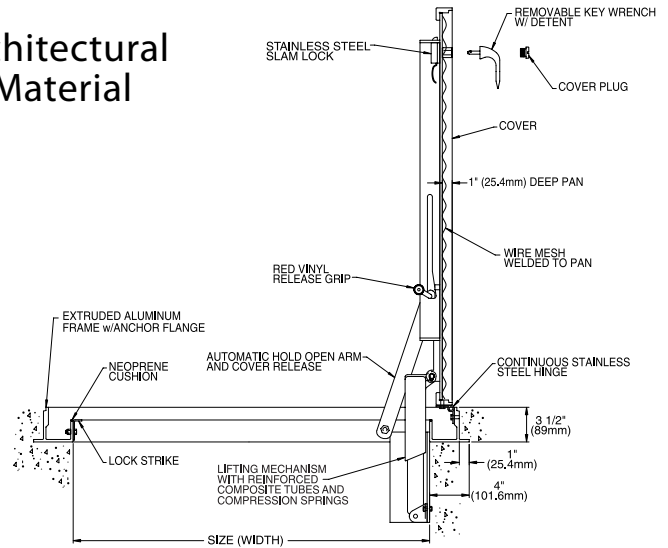


Type TER, TRD Aluminum for Finished Flooring Materials



Shown with optional anodized finish

Accepts Architectural Flooring Material



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

1/4" (6.35mm) cover and extruded aluminum frame

Cover

Smooth plate reinforced for 150 psf (732 kg/m²) 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

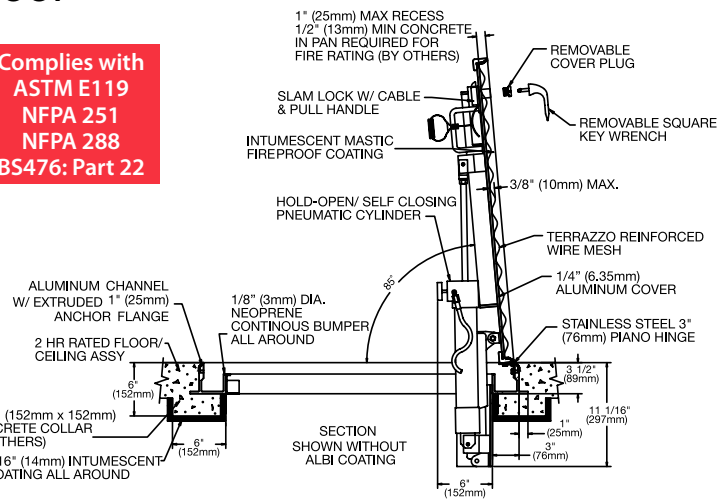
SIZE		ALUMINUM		
(width x length)		Model #	Weight	
inches	mm		lbs.	kg.
24 x 24	610 x 610	TER-1	100	45
30 x 30	762 x 762	TER-2	110	50
36 x 30	914 x 762	TER-3	120	54
36 x 36	914 x 914	TER-4	130	59
42 x 42	1067 x 1067	TER-5	165	75
48 x 48	1219 x 1219	TRD-2	200	91
48 x 72	1219 x 1829	TRD-3	275	125
60 x 60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

1/4" (6.35mm) cover and extruded aluminum frame

Cover

Aluminum plate reinforced for 150 psf (732 kg/m²) 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				
(width x length)		Model #	Clear Opening		Weight	
inches	mm		inches	mm	lbs.	kg.
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

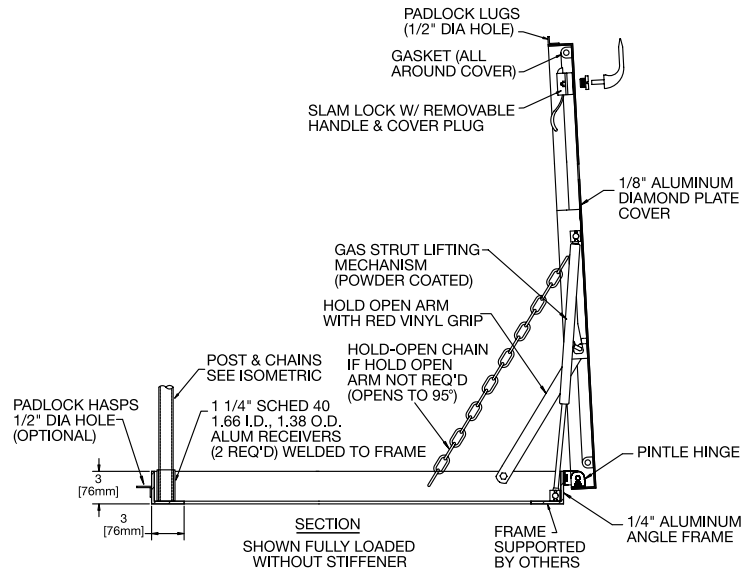




Type SM Surface Mount Access Door



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

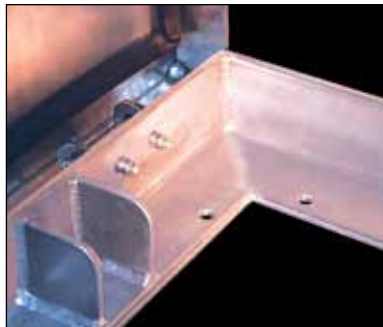
Gas strut lifting mechanism. Automatic hold-open arm with grip handle release.

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/in² (14 kg/cm²) 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 & 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.³/min (0.28m³/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/m²) 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 paint 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.



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