

HORIZONTAL ACCESS PRODUCTS

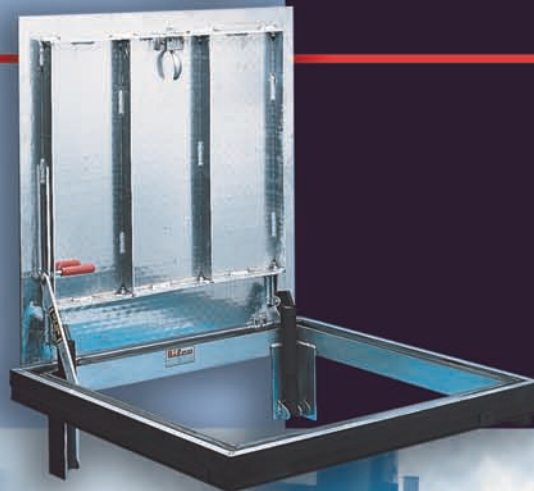
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Roof Access Hatches



Automatic Smoke Vents



Floor Doors



Introduction



Bilco's History

The Bilco Company was established in America in 1926 and has for many decades designed and supplied access products for construction and engineering industries all over the world. Under the same family ownership and management since it's beginning, the Company has been a pioneer in the development of a unique line of horizontal access products. In 1989, Bilco UK & Europe was formed and has built a reputation amongst architects, engineers, specifiers, and the construction trades for providing the right access solution.

Bilco Today

Based in Suffolk, Bilco UK can supply the trade with a range of standard roof hatches, smoke vents, and floor doors in various sizes and materials direct from stock. Standard items are delivered anywhere in the UK in 3-4 working days and best of all, there's no extra charge. If a special product is required, our fast-track shop allows us to deliver in an industry leading 4-6 weeks. Bilco UK also provides technical assistance for more complex product requirements. Our technical department will assist you to develop a creative design solution for your unique applications. Our quality access products comply with current Building Regulations and Legislation, and are engineered to provide many years of trouble-free service.



Bilco UK, Suffolk, England



Headquarters/Manufacturing – West Haven, Connecticut, U.S.A.

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 company-wide 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.

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 brochure. 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.



Roof Access Hatches

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Product details and specifications are readily available by logging on to www.bilcouk.com.

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

2,682,324	4,729,453	5,657,587	6,672,020
3,516,198	4,873,791	5,927,012	6,931,793
3,877,173	5,107,640	6,021,606	Canada:1971,
4,135,508	5,136,811	6,041,553	1974, 1977, 1985.
4,145,843	5,301,469	6,260,305	Other U.S. and
4,546,855	5,373,665	6,347,818	International patents
			issued and pending.



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

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For more information log on to www.bilcouk.com

Roof Access Hatches

Bilco roof hatches provide safe and convenient access to roof areas for routine maintenance and servicing of rooftop equipment 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 plant and machinery from a building.

Typical Applications

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

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 2m in length have a 2-point latch.)

Interior reinforcing members are welded in place for cover strength and rigidity

Rugged hold-open arm automatically locks the cover in the open position. Grip handle allows for easy, one-hand release and closing

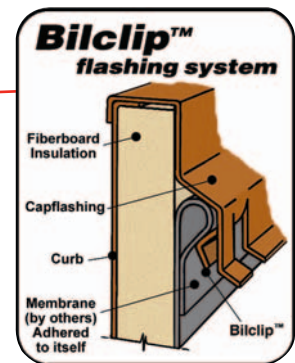


Features & Benefits

- Weathertight construction
- Fully insulated and gasketed for energy efficiency
- Lift assistance for smooth, easy, one-hand operation
- Corrosion resistant hardware
- Bil-Clip™ Flashing System for ease of installation
- Custom sizes and options are readily available
- Meets the requirements of manual handling regulations

Extruded EPDM rubber gasket permanently adhered to the underside of cover. Finger design ensures complete weathertightness

Fully enclosed compression springs counterbalance the cover for smooth, easy and controlled operation regardless of size or weight



Fully insulated cover and curb

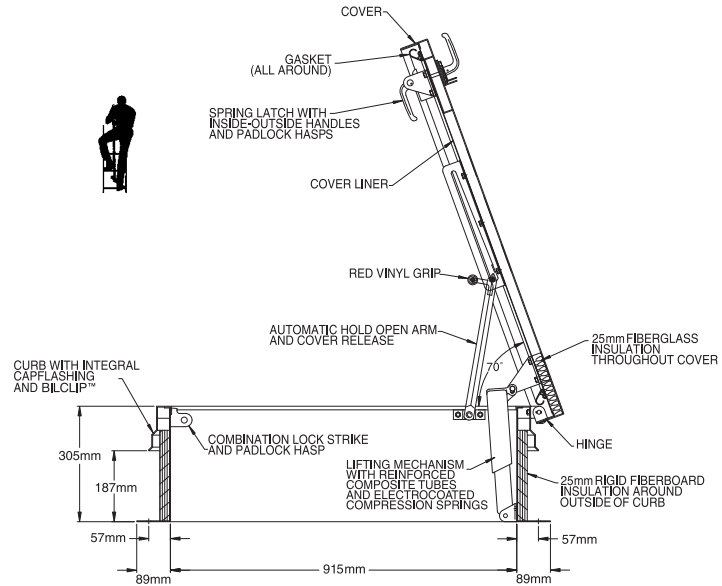
NEW! All Bilco roof hatches feature pre-punched capflashing to receive the Bil-Guard™ Hatch Rail System (see page 13 for more information)



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, aluminium, or stainless steel construction.

Specifications:

Material (select one)

- Steel: Cover and frame are 2mm G-90 paint bond galvanized steel
- Aluminium: Cover and frame are 2.3mm aluminium
- Stainless Steel: Cover and frame are 2mm Type 304 stainless steel

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Hinges

Heavy-duty pintle hinges with 10mm 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
- Aluminium: Mill finish
- Stainless Steel: Type 304 stainless steel with sandblast finish

Hardware:

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

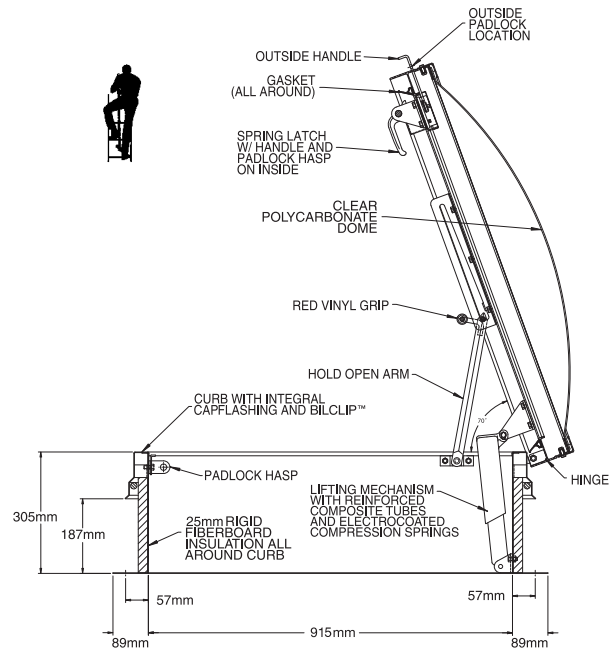


Shown with optional Bilco LadderUP Safety Post

Standard Sizes and Weights

SIZE (mm)	STEEL		STEEL CURB & ALUMINIUM COVER		ALUMINIUM		STAINLESS STEEL	
	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #	Weight (kg.)
915 x 760	S-20	83	S-40	68	S-50	50	S-90	98
915 x 915	E-20	94	E-40	84	E-50	53	E-90	109

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 aluminium construction and virtually indestructible polycarbonate domes.

Specifications:

Material

Cover and frame are 2.3mm aluminium

Cover

Aluminium extrusion with built-in drainage channel and clear polycarbonate single skin dome or double skin domes

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to the cover

Hinges

Heavy-duty pintle hinges with 10mm 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 with electrocoated acrylic finish. Type 316 stainless steel hinges. All other hardware is zinc plated/chromate sealed.

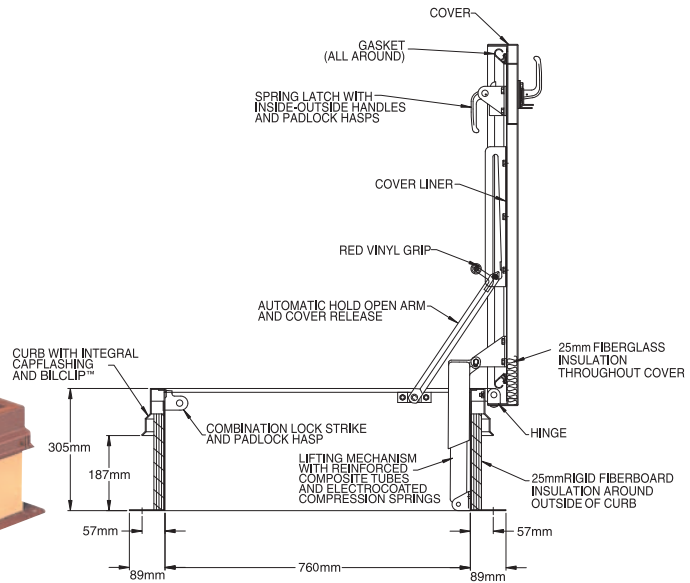
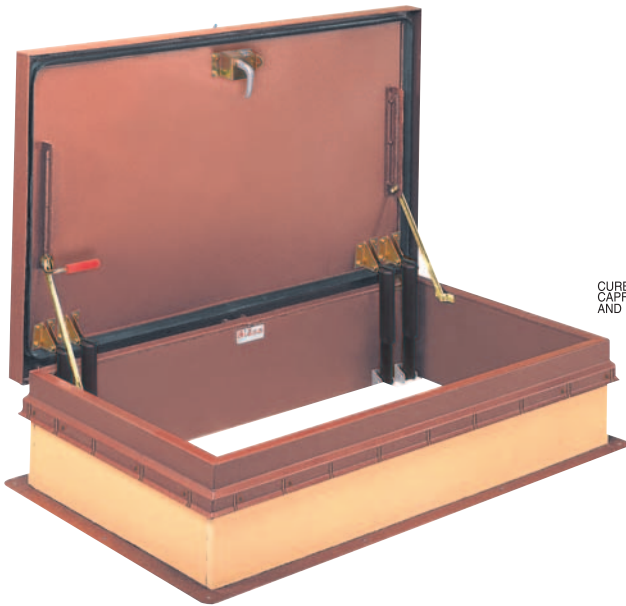


Shown with optional Bilco LadderUP™ Safety Post

Standard Sizes and Weights

SIZE (mm)	ALUMINIUM W/ SKYLIGHT			
	SINGLE SKIN		DOUBLE SKIN	
(width x length)	Model #	Weight (kg.)	Model #	Weight (kg.)
915 x 760	GS-50	53	MGS-50	92
Special	GSS-50	Dependent on Size	GSS-50	Dependent on Size
Special	GD-50	Dependent on Size	GD-50	Dependent on Size

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, aluminium, or stainless steel construction.

Specifications:

Material *(select one)*

- Steel: Cover and frame are 2mm G-90 paint bond galvanized steel
- Aluminium: Cover and frame are 2.3mm aluminium
- Stainless Steel: Cover and frame are 2mm Type 304 stainless steel

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Hinges

Heavy-duty pintle hinges with 10mm Type 316 stainless steel hinge pins

Latch

Slam latch with interior and exterior turn handles and padlock hasps

Lift Assistance

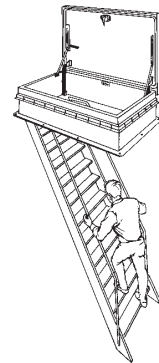
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

Finish

- Steel: Alkyd base red oxide primer
- Aluminium: Mill finish
- Stainless Steel: Type 304 stainless steel with sandblast finish

Hardware

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



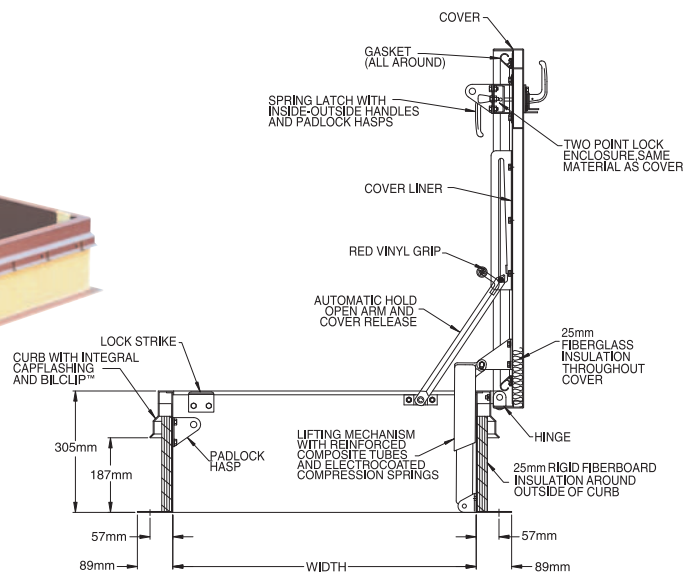
Standard Sizes and Weights

SIZE (mm)	STEEL		STEEL CURB & ALUMINIUM COVER		ALUMINIUM		STAINLESS STEEL	
	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #	Weight (kg.)
760 x 1370	NB-20	109	NB-40	86	NB-50	63	NB-90	118

Type L, Type SSY Service Stair Access



Type L door shown



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, aluminium, or stainless steel construction.

Specifications:

Material (select one)

- Steel: Cover and frame are 2mm G-90 paint bond galvanized steel
- Aluminium: Cover and frame are 2.3mm aluminium
- Stainless Steel: Cover and frame are 2mm Type 304 stainless steel

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Hinges

Heavy-duty pintle hinges with 10mm Type 316 stainless steel hinge pins

Latch

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

Lift Assistance

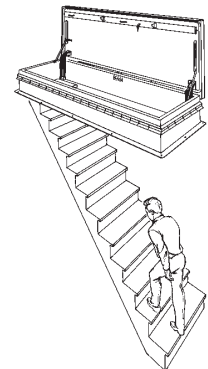
Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release.

Finish

- Steel: Alkyd base red oxide primer
- Aluminium: Mill finish
- Stainless Steel: Type 304 stainless steel with sandblast finish

Hardware

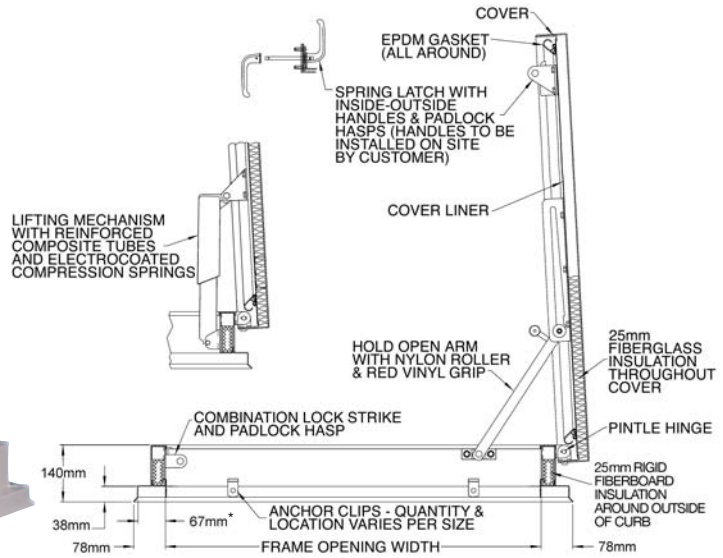
- Steel: Engineered composite compression spring tubes. Steel compression springs with electrocoated acrylic finish. All other hardware is zinc plated/chromate sealed.
- Aluminium: Engineered composite compression spring tubes. Steel compression springs with electrocoated acrylic finish. Type 316 stainless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



Standard Sizes and Weights

SIZE (mm)	STEEL		STEEL CURB & ALUMINIUM COVER		ALUMINIUM		STAINLESS STEEL	
	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #	Weight (kg.)
760 x 2440	L-20	197	L-40	134	L-50	115	L-90	200
760 x 3360	SSY-20	273	SSY-40	188	SSY-50	142	SSY-90	273

The VersaMount® Access Hatch



*Bilco recommend maximum upstand width is 65mm

Description:

The VersaMount® access hatch will expand your installation options for upstands where weather proofing has been preapplied, while providing your customer with ease of operation, weathertight performance, and years of maintenance-free service. Whether your application 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.

Specifications:

Material (select one)

- Steel: Cover and frame are 2mm G-90 paint bond galvanized steel
- Aluminium: Cover and frame are 2.3mm aluminium
- Stainless Steel: Cover and frame are 2mm Type 304 stainless steel

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

102mm in height, breakformed hollow-metal design with 25mm concealed fibreglass insulation, 67mm mounting flange and 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 10mm 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

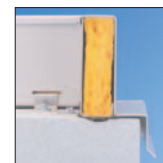
- Steel: Alkyd base red oxide primer
- Aluminium: Mill finish
- Stainless Steel: Type 304 stainless steel with sandblast finish

Hardware

- Steel: Engineered composite compression spring tubes. Steel compression springs with electrocoated acrylic finish. All other hardware is zinc plated/chromate sealed.
- Aluminium: Engineered composite compression spring tubes. Steel compression springs with electrocoated acrylic finish. 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 Irregularly Sized Curbs



Job-Built/Prefab Metal Curbs

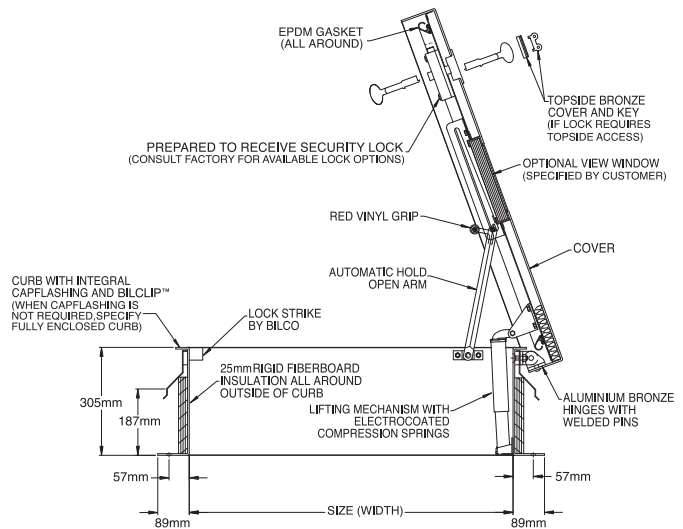
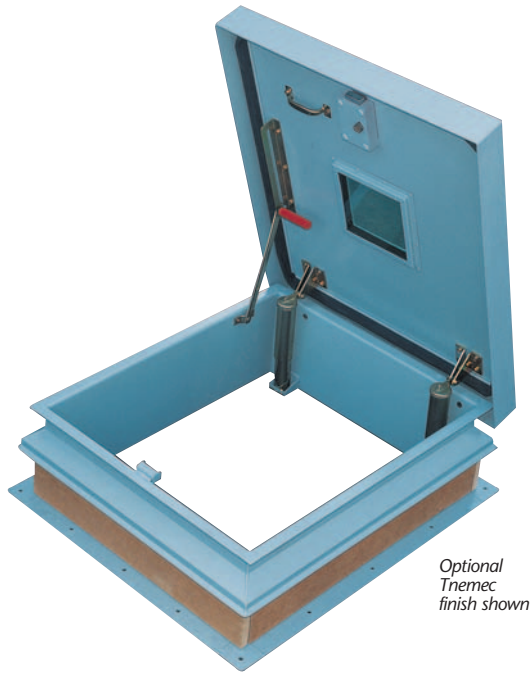


Over Existing Roof hatch Curbs

Standard Sizes and Weights

SIZE (mm)	STEEL		ALUMINIUM		STAINLESS STEEL	
	(width x length)	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #
915 x 760	S-20VM	83	S-50VM	46	S-90VM	70
760 x 1370	NB-20VM	107	NB-50VM	52	NB-90VM	82
760 x 2440	L-20VM	195	L-50VM	88	L-90VM	145
1000 x 1000	EW-20VM	94	EW-50VM	41	EW-90VM	77

No specials available



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 21 for more information.)

Specifications:

Material *(select one)*

- Steel: Cover and frame are 5mm steel
- Aluminium: Cover and frame are 5mm aluminium

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Hinges

Heavy-duty aluminium bronze hinges

Latch

Factory prepared to receive a deadbolt detention lock (specify manufacturer and model #), supplied and installed by others in the field. Consult Bilco 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
- Aluminium: Mill finish

Hardware

Steel compression springs with electrocoated acrylic finish. All other hardware is zinc plated/chromate sealed.

Standard Sizes and Weights

SIZE (mm) (width x length)	STEEL			ALUMINIUM		
	Model #	Weight (kg.)	Open Angle	Model #	Weight (kg.)	Open Angle
915 x 760	S-20C	151	70°	S-50C	68	70°
915 x 915	E-20C	181	70°	E-50C	80	70°
760 x 1370	NB-20C	215	90°	NB-50C	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, aluminium, and stainless steel construction and in one standard single leaf size [Type F, 1220mm x 1220mm]. Special single leaf sizes (Type SS) are available and are recommended for widths up to 1525mm. For larger openings, specify double leaf construction (Type D). For best operation, specify aluminium construction for single leaf hatches over 915mm wide and double leaf hatches over 2135mm in width.

Specifications:

Material *(select one)*

- Steel: Cover and frame are 2mm G-90 paint bond galvanized steel
- Aluminium: Cover and frame are 2.3mm aluminium
- Stainless Steel: Cover and frame are 2mm Type 304 stainless steel

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Hinges

Heavy-duty pintle hinges with 10mm Type 316 stainless steel hinge pins

Latch

- Single leaf: Slam latch with interior and exterior turn handles and padlock hasps
- 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
- Aluminium: Mill finish
- Stainless Steel: Type 304 stainless steel with sandblast finish

Hardware

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

Standard Sizes and Weights

SIZE (mm)	STEEL CURB & ALUMINIUM COVER		ALUMINIUM	
	Model #	Weight (kg.)	Model #	Weight (kg.)
(width x length) 1220 x 1220	F-40	125	F-50	99

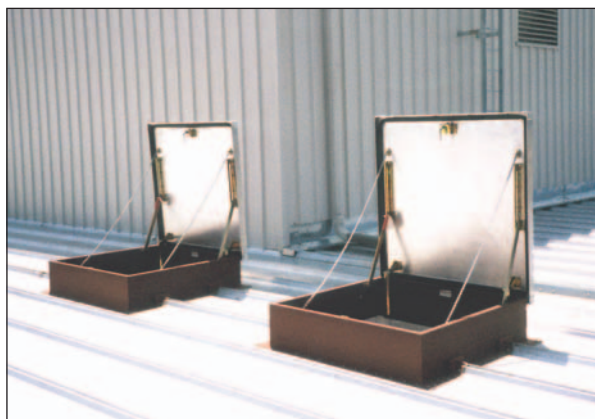
Special Sizes

- Type SS - Single Leaf
- Type D - Double Leaf

Contact Bilco for more information



Type D Double Leaf Roof Hatch Shown

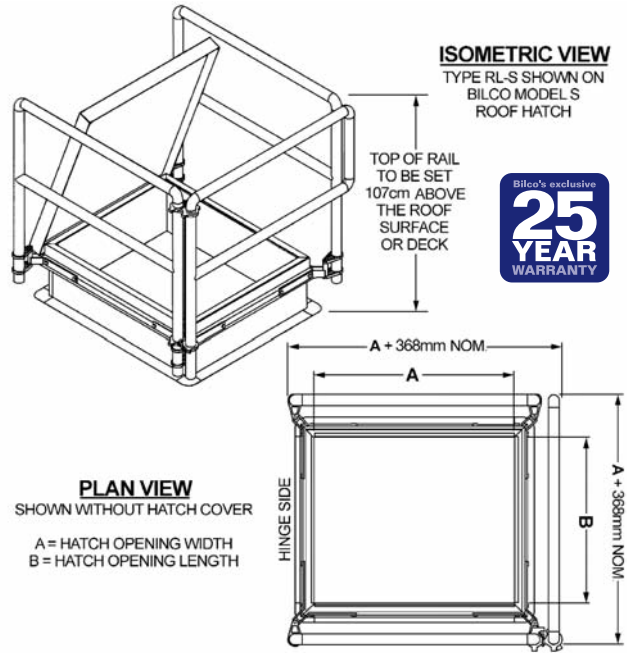


Type F Single Leaf Roof Hatch Shown

Bil-Guard™ Hatch Rail System



Patented



Bil-Guard® Hatch Rail System

Standard Features and Benefits

- High visibility safety yellow colour
- Non-penetrating attachment
- Standard self-closing gate feature
- 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

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

ROOF HATCH		BIL-GUARD HATCH RAIL SYSTEM	
Size (mm) (width x length)	Bilco Model	Model #	Shipping Weight (kg.)
915 x 760	S	RL-S	24
915 x 915	E	RL-E	24
1220 x 1220	F	RL-F	28
760 x 1370	NB	RL-NB	27
760 x 2440	L	RL-L	35

Specifications

Posts and rails are pultruded from a fire retardant, fibreglass-reinforced polymer (FRP). FRP material has a molded-in, high visibility, safety yellow colour and is treated with a UV inhibitor. Mounting brackets are fabricated from 6mm thick hot dip galvanized steel. Gate hinges and post guides are constructed of 6063-T5 aluminium 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.



Self-Closing Gate Hinge
Ensures continuous protection



Pivoting Mounting Sleeve
For installation flexibility



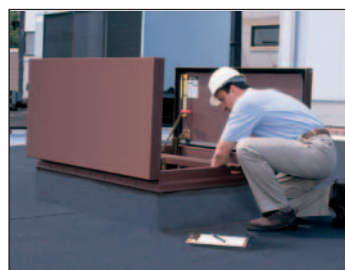
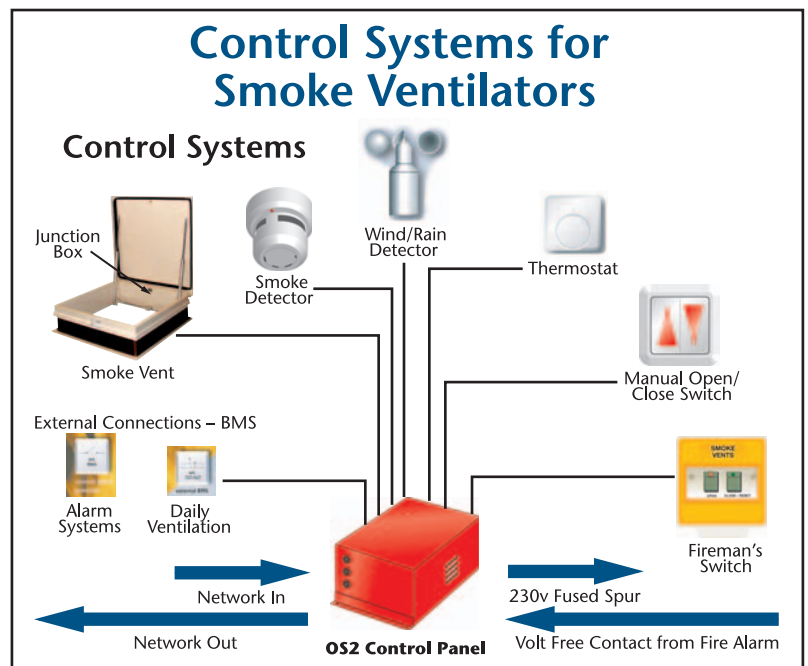
Quick-Mount Bracket
For fast, secure attachment

Automatic Smoke Vents

Automatic REM Smoke Vents open to a full 90 degrees to ensure rapid dispersal of smoke and noxious fumes and can be positioned at the head of a stairway, lift shaft, or on a roof. In addition, REM's can be wired directly into a building's management system or can be supplied with a kit that is comprised of a dedicated battery back up control panel, fireman's switch, and smoke detector. REM's meet current UK legislation and can be incorporated within a system designed to BS5588 (part 5), EN12101 or by following recognised codes of practice such as BRE 79204.

Typical Applications

- High-Rise Housing
- Offices and Commercial Buildings
- Aircraft Hangars
- Auditoria
- Concert Halls and Theatres
- Convention Centres
- Gymnasiums
- Manufacturing Plants
- Retail Centres
- Schools
- Hospitals
- Distribution Depots
- Warehouses



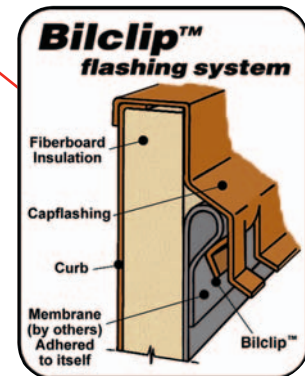
Features & Benefits

Fully gasketed for weathertight performance

24v DC linear actuators ensure positive, controlled operation

Fully insulated cover and curb

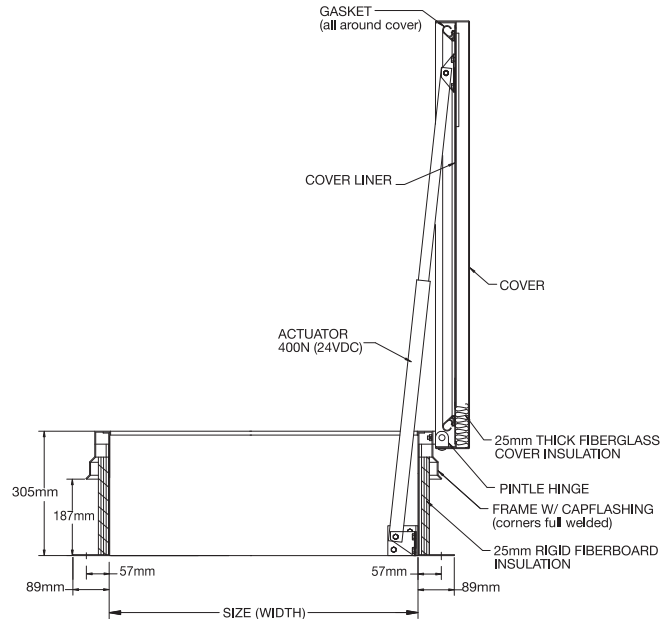
- Increased evacuation time and decreased risk of smoke inhalation and damage
- Enhanced visibility to allow firefighters to quickly locate the fire
- Protection against secondary ignitions and lateral fire spread
- Exhausting of noxious and potentially explosive fumes
- Structure protection from damaging heat
- Reduce damage to building contents
- Can be used for access and comfort ventilation



REM Smoke Vent Single Leaf



Electric Actuation for Remote Opening and Closing



Description:

The new Bilco REM Automatic Smoke Ventilator is the result of an intensive development programme stemming from ongoing customer demand. Single leaf REM smoke ventilators feature aluminium construction and are available in a number of standard sizes to meet your unique venting requirements.

Guide Specifications:

Material

Cover and frame are 2.3mm aluminium

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Linear Actuator

24v DC actuators provide remote open and close operation. Opens cover to a full 90 degrees to ensure rapid dispersal of smoke and noxious fume. See list of options below.

Performance Ratings

Linear actuators ensure positive and controlled operation

Finish

Mill finish aluminium

Hardware

Corrosion resistant hardware features aluminium and stainless steel components

Standard Sizes and Weights

SIZE (mm) (width x length)	ALUMINIUM		CLEAR VENT AREA
	Model #	Weight (kg)	
1000 x 1000	EW-50REM	60	1m ²
760 x 1370	NB-50REM	72	1m ²
1250 x 1250	FW-50REM	105	1.5m ²
1000 x 1500	HW-50REM	105	1.5m ²
1000 x 1000	GEW-50REM	111	1m ^{2*}
Special	SS-50REM	Special	Dependent on Size

*Clear double skin poly dome

Typical Control Devices for Most Smoke Vent Installations:

- OS2 Battery Backed Control Panel
- OSO Fireman's Switch
- OSO Ionisation Smoke Detector

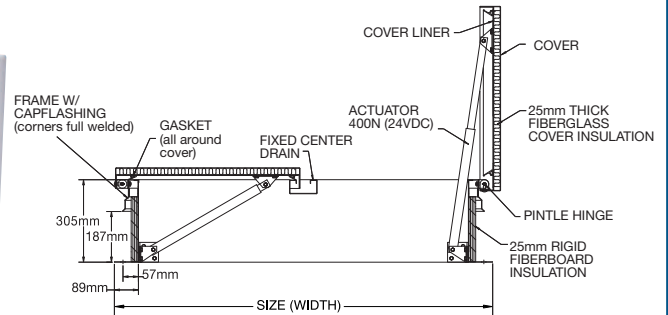
Extras for Access/Comfort Ventilation

- OSO Rain Sensor
- OSO Auto/Manual Switch
- OSO Manual Open/Close Switch
- Keyed Open/Close Switch

REM Smoke Vent Double Leaf



Electric Actuation for Remote Opening and Closing



Description:

The new Bilco REM Automatic Smoke Ventilator is the result of an intensive development programme stemming from ongoing customer demand. Double leaf REM smoke ventilators feature aluminium construction and can be fabricated to just about any size to meet your unique venting requirements.

Guide Specifications:

Material

Cover and frame are 2.3mm aluminium

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Linear Actuator

24v DC actuators provide remote open and close operation. Opens cover to a full 90 degrees to ensure rapid dispersal of smoke and noxious fume. See list of options below.

Performance Ratings

Linear actuators ensure positive and controlled operation

Finish

Mill finish aluminium

Hardware

Corrosion resistant hardware features aluminium and stainless steel components

Standard Sizes and Weights

SIZE (mm) (width x length)	ALUMINIUM		CLEAR VENT AREA
	Model #	Weight (kg)	
Special	D-50REM	Special	Dependent on Size

Typical Control Devices for Most Smoke Vent Installations:

- OS2 Battery Backed Control Panel
- OSO Fireman's Switch
- OSO Ionisation Smoke Detector

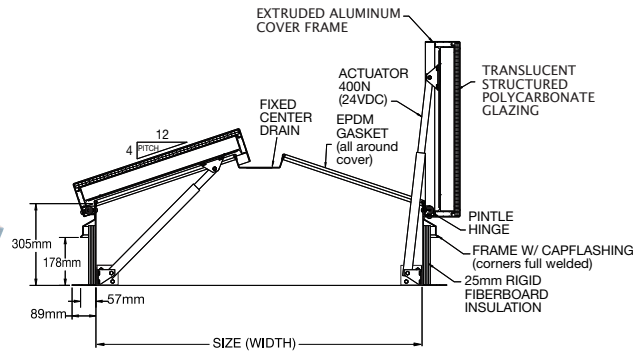
Extras for Access/Comfort Ventilation

- OSO Rain Sensor
- OSO Auto/Manual Switch
- OSO Manual Open/Close Switch
- Keyed Open/Close Switch

REM Lumivent® Smoke Vent Double Leaf



Electric Actuation – Translucent Covers for Remote Opening and Closing



Description:

Lumivent® ventilators provide the security and value of an automatic smoke vent with the added benefits of a skylight. Product provides natural daylight and energy efficiency while minimizing solar heat gain. Product features aluminium construction and a virtually indestructible polycarbonate cover panels.

Guide Specifications:

Material

Cover and frame are 2.3mm aluminium

Cover

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to cover

Linear Actuator

24v DC actuators provide remote open and close operation. Opens cover to a full 90 degrees to ensure rapid dispersal of smoke and noxious fume. See list of options below.

Performance Ratings

Linear actuators ensure positive and controlled operation

Finish

Mill finish aluminium

Hardware

Corrosion resistant hardware features aluminium and stainless steel components



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 (mm) (width x length)	ALUMINIUM		CLEAR VENT AREA
	Model #	Weight (kg)	
1250 x 1250	FW-LVREM	113	1.5m ²

Typical Control Devices for Most Smoke Vent Installations:

- OS2 Battery Backed Control Panel
- OSO Fireman's Switch
- OSO Ionisation Smoke Detector

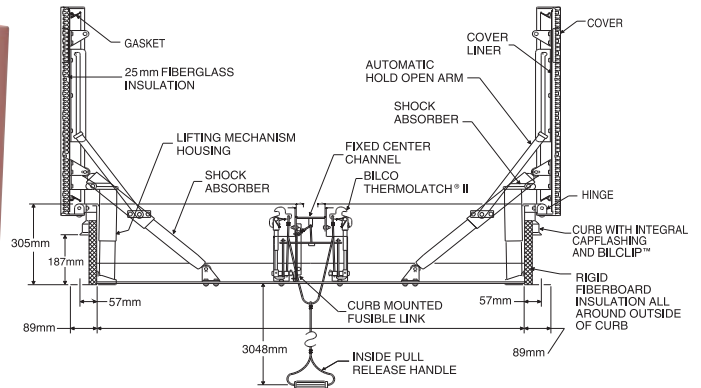
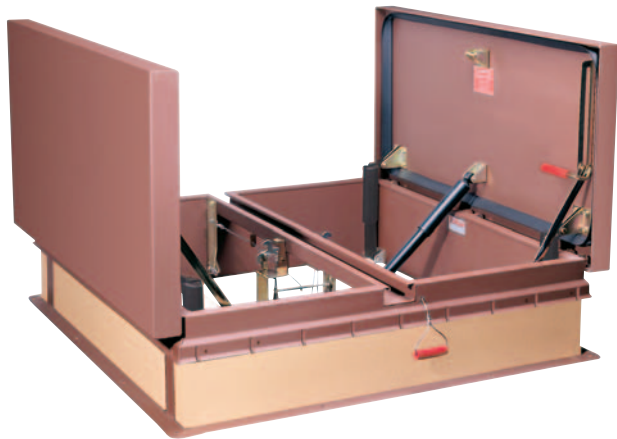
Extras for Access/Comfort Ventilation

- OSO Rain Sensor
- OSO Auto/Manual Switch
- OSO Manual Open/Close Switch
- Keyed Open/Close Switch

Type DSH Double Leaf



Mechanical Actuation



Description:

In addition to vents that open electronically, The Bilco Company manufactures a complete line of mechanically operated smoke vents. Vent covers are oversprung and open automatically when heat melts a 74°C fusible link. The DSH series smoke vents are available in a number of standard UL-listed and FM-approved sizes. Features include fully insulated covers and galvanized steel or aluminium construction.



Specifications:

Material *(select one)*

- Steel: Cover and frame are 2mm G-90 paint bond galvanized steel
- Aluminium: Cover and frame are 2.3mm aluminium

Covers

Breakformed, hollow-metal design with 25mm concealed fibreglass insulation, 76mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

305mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to the covers

Hinges

Heavy-duty pintle hinges with 10mm Type 316 stainless steel hinge pins

Latch

Positive hold/release mechanism controlled by a single UL-listed 74°C fusible link with a separate latching point for each cover. Designed to hold the covers closed against a 438 kg/m² wind uplift force. Provided with interior and exterior pull release cables to manually open vent covers. (24v DC latching mechanism can be specified for connection to a smoke alarm system.)

Operation

Compression springs enclosed in telescopic tubes open covers automatically against a 49 kg/m² snow/wind load when released. Automatic hold-open arms lock each cover in the full open position. Each cover is supplied with a shock absorber to assure a controlled rate of opening.

Performance Ratings

UL-listed and FM-approved. Comply with UL 790 Class A (burning brand test).

Finish

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

Hardware

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

Standard Sizes and Weights

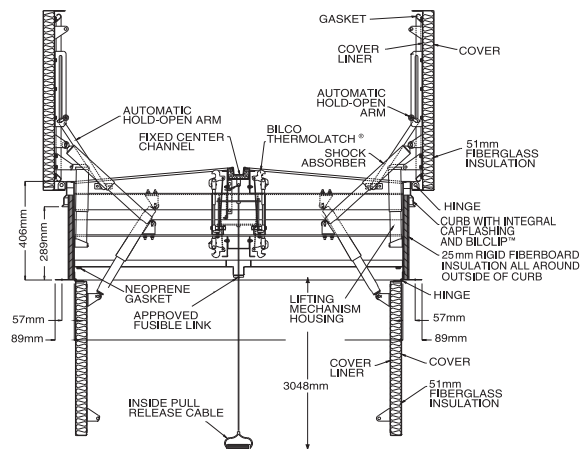
SIZE (mm)	STEEL		STEEL CURB & ALUMINIUM COVER		ALUMINIUM		
	(width x length)	Model #	Weight (kg.)	Model #	Weight (kg.)	Model #	Weight (kg.)
1220 x 1220		DSH4848	166	DSH4848A	143	DSH4848B	118
1220 x 1830		DSH4872	206	DSH4872A	177	DSH4872B	145
1220 x 2290		DSH4890	247	DSH4890A	208	DSH4890B	172
1220 x 2440		DSH4896	280	DSH4896A	220	DSH4896B	177
1520 x 1520		DSH6060	315	DSH6060A	202	DSH6060B	150
1520 x 1830		DSH6072	333	DSH6072A	218	DSH6072B	172
1520 x 2135		DSH6084	379	DSH6084A	256	DSH6084B	191
1520 x 2440		DSH6096	390	DSH6096A	265	DSH6096B	193
1520 x 3050		DSH60120	475	DSH60120A	322	DSH60120B	240
1680 x 1680		DSH6666	295	DSH6666A	206	DSH6666B	179
1680 x 3660		DSH66144*	694	DSH66144A*	481	DSH66144B*	358
1830 x 1830		DSH7272	358	DSH7272A	252	DSH7272B	188

*This size has four covers

Type ACDSH Double Leaf – Acoustical



Mechanical Actuation



Description:

In addition to vents that open electronically, The Bilco Company manufactures a complete line of mechanically operated smoke vents. Vent covers are oversprung and open automatically when heat melts a 74°C fusible link. Available in a number of standard FM-approved 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-45 and OITC-37 sound rating and are ideal for concert halls, theaters, casinos, and other applications.

Specifications:

Material

Cover and frame are 2mm G-90 paint bond galvanized steel

Covers

Designed with upward and downward opening covers to achieve acoustical sound rating. Breakformed, hollow-metal design with 51mm concealed fiberglass insulation, 102mm beaded, overlapping flange, fully welded at corners, and internally reinforced for 195 kg/m² live load

Curb

406mm in height with integral capflashing, 25mm fibreboard insulation, fully welded at corners, and 89mm mounting flange with 11mm holes provided for securing frame to the roof deck

Gasket

Extruded EPDM rubber gasket permanently adhered to the upward opening covers. Downward opening covers utilize a permanently adhered neoprene foam gasket.

Hinges

Upward opening: Heavy-duty pintle hinges with 10mm Type 316 stainless steel hinge pins
Downward opening: Continuous piano hinge

Latch

Positive hold/release mechanism controlled by a single UL-listed 74°C fusible link with a separate latching point for all covers. Designed to hold the covers closed against a 438 kg/m² uplift force. Provided with interior and exterior pull release cables to manually open vent covers. (24v DC latching mechanism can be specified for connection to a smoke alarm system.)

Operation

Compression springs enclosed in telescopic tubes open covers automatically against a 49 kg/m² snow/wind load when released. Automatic hold-open arms lock each cover in the full open position. Each cover is supplied with a shock absorber to assure a controlled rate of opening.

Performance Ratings

FM-approved. STC-45 and OITC-37 sound rating.
Comply with UL 790 Class A (burning brand test).

Finish

Alkyd base red oxide primer

Hardware

Engineered composite compression spring tubes
Steel compression springs with electrocoated acrylic finish
All other hardware is zinc plated/chromate sealed



Standard Sizes and Weights

SIZE (mm)	STEEL	
	Model #	Weight (kg.)
1220 x 1220	ACDSH4848	363
1220 x 1830	ACDSH4872	426
1220 x 2290	ACDSH4890	533
1220 x 2440	ACDSH4896	558
1520 x 1520	ACDSH6060	528
1520 x 2440	ACDSH6096	701
1680 x 3660	ACDSH66144*	1032
1830 x 1830	ACDSH7272	685

*This size has four covers

Roof Access Hatch and Automatic Smoke Vent

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.

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.

Insulation – Bilco offers insulation options to enhance the energy efficiency of its roofing products. When specified, products can be supplied with up to 50mm of Styrofoam or Urethane insulation in the cover and curb.

Special Finishes – When specified, custom finishes can be supplied on Bilco roofing products. Common options include Kynar®, Thnemec®, or polyester powder coat paint finishes and anodized aluminium.

Roof Hatch Security Options – Bilco offers the options shown 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

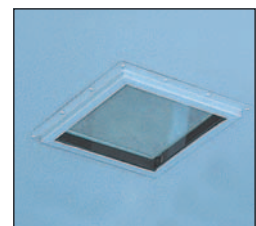
Detention Locks – Detention locks provide keyed interior and exterior access and are ideal for prisons and other buildings requiring a maximum level of security. For added security and weathertightness, the lock is accessed from the exterior through a gasketed, threaded deckplate. Bilco roof hatches 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 – 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.



Explosion Vents

Explosion Relief Smoke 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 122 kg/m² and 146kg/m² of pressure on the underside of the covers.

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.

Floor Doors

Exterior • Interior • Fire Rated

Floor 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
- Prisons
- Utilities
- Factories
- Hospitals
- Manufacturing Facilities
- Office Buildings
- Manufacturing Plants
- Retail Structures
- Schools
- Telecommunications Vaults
- Distribution Depots
- Warehouses
- Water/Waste Treatment Plants

Drainage Doors

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.

Non-Drainage Doors

Generally for interior use or exterior applications where water or liquid infiltration is not a concern. As indicated, some of the models shown are designed to accept a wide variety of flooring materials, allowing them to blend into virtually any building environment.

Positive latching mechanism

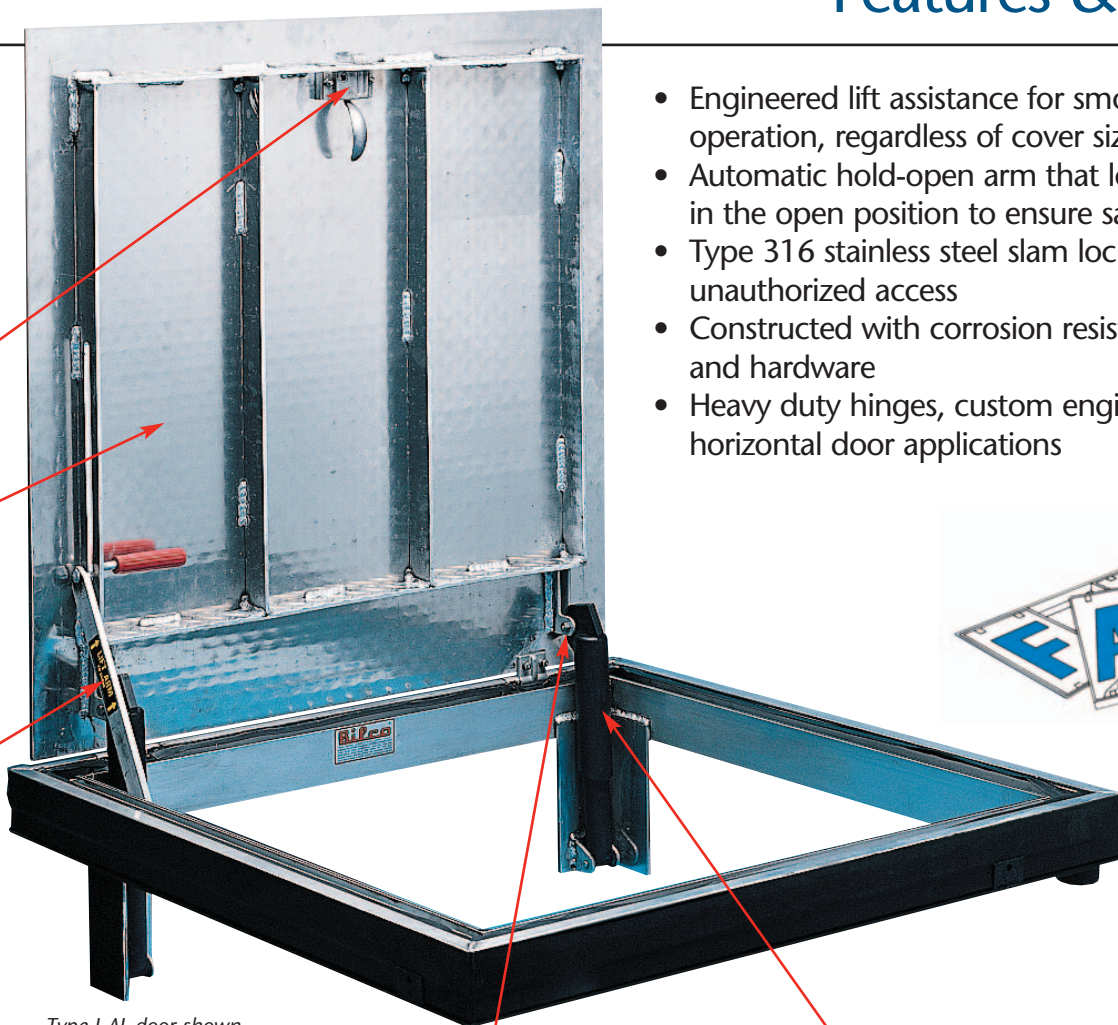
Structurally reinforced cover

Automatic hold-open arm with convenient release handle



Features & Benefits

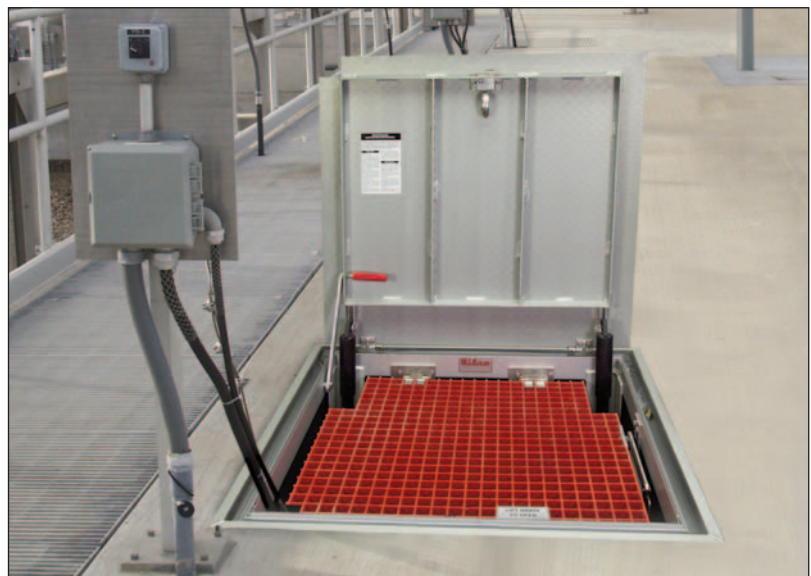
- Engineered lift assistance for smooth, easy door operation, regardless of cover size and weight
- Automatic hold-open arm that locks the cover in the open position to ensure safe egress
- Type 316 stainless steel slam lock to prevent unauthorized access
- Constructed with corrosion resistant materials and hardware
- Heavy duty hinges, custom engineered for horizontal door applications



Type J-AL door shown

Heavy-duty hinges

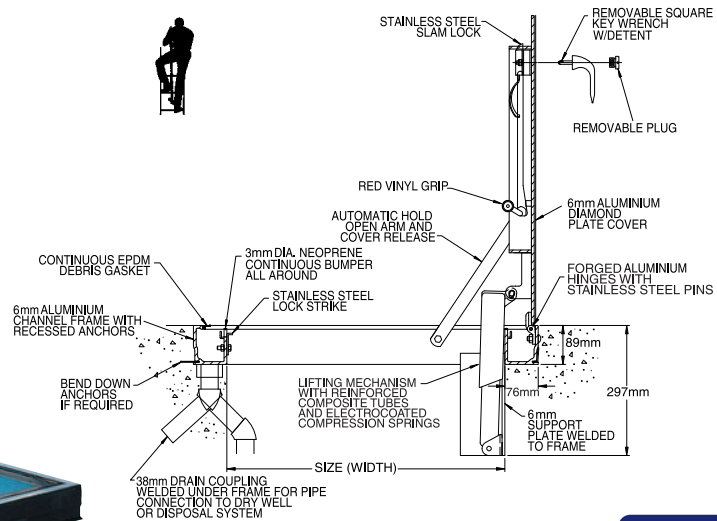
Lift assistance counterbalances cover



Type J-AL, JD-AL Aluminium Drainage Door



Single or Double Leaf



Description:

Ideal for most corrosive environments. Single or double leaf covers are constructed of 6mm diamond pattern plate and reinforced for a 1464 kg/m² live load. Features anti-corrosion hardware, standard debris gasket, and a versatile anchoring system for ease of installation.

Specifications:

Material

Cover and frame are 6mm aluminium

Cover

Diamond-pattern tread plate reinforced for 1464 kg/m² live load

Frame

Extruded aluminium channel frame with bend down anchor tabs around the perimeter. A 38mm drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

Gasket

EPDM gasket mechanically attached to the frame reduces the amount of dirt and debris that may enter the channel frame

Hinges

Heavy forged aluminium hinges with 6mm 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.

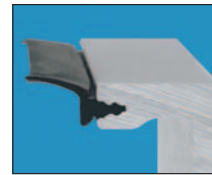
Finish

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

Hardware

Engineered composite compression spring tubes. Steel compression springs with electrocoated acrylic finish. All other components of door are aluminium or Type 316 stainless steel.

Features on all J/JD aluminium doors include:



Debris Gasket



Adjustable Anchor Tabs



Standard Sizes and Weights

SIZE (mm)	ALUMINIUM	
(width x length)	Model #	Weight (kg.)
610 x 610	J-1AL	30
760 x 760	J-2AL	40
915 x 760	J-3AL	44
915 x 915	J-4AL	49
1065 x 1065	J-5AL	61
1220 x 760	JD-1AL	66
1220 x 1220	JD-2AL	79
1220 x 1830	JD-3AL	106
1525 x 1525	JD-4AL	109

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

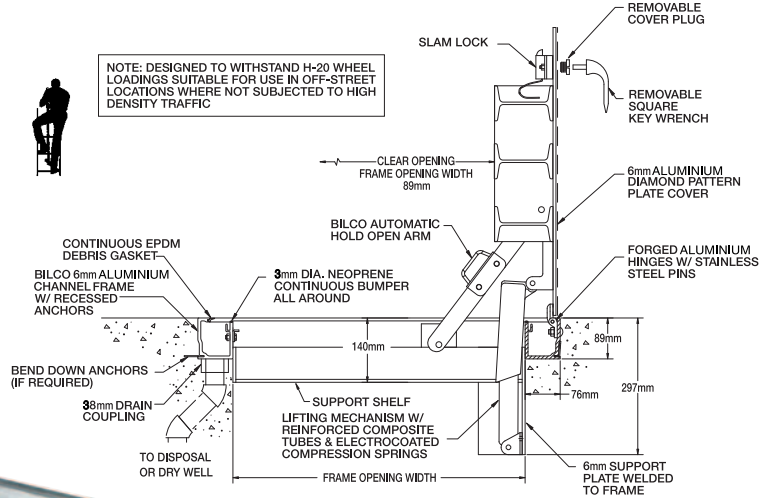
Type J-AL H20, JD-AL H20



Aluminium Drainage Door Single or Double Leaf



NOTE: DESIGNED TO WITHSTAND H-20 WHEEL LOADINGS SUITABLE FOR USE IN OFF-STREET LOCATIONS WHERE NOT SUBJECTED TO HIGH DENSITY TRAFFIC



Description:

Designed to withstand vehicular traffic in off-street locations. Single or double leaf covers are constructed of 6mm diamond pattern plate and reinforced for AASHTO H-20 wheel loading (14,500 kg. axle load). 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 6mm aluminium

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 aluminium channel frame with bend down anchor tabs around the perimeter. A 38mm drain coupling is welded under the frame for a pipe connection to a dry well or disposal system.

Gasket

EPDM gasket mechanically attached to the frame reduces the amount of dirt and debris that may enter the channel frame

Hinges

Heavy forged aluminium hinges with 6mm 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

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

Hardware

Engineered composite compression spring tubes
Steel compression springs with electrocoated acrylic finish
All other components of door are aluminium or Type 316 stainless steel

Features on all J/JD aluminium doors include:



Debris Gasket



Adjustable Anchor Tabs



Standard Sizes and Weights

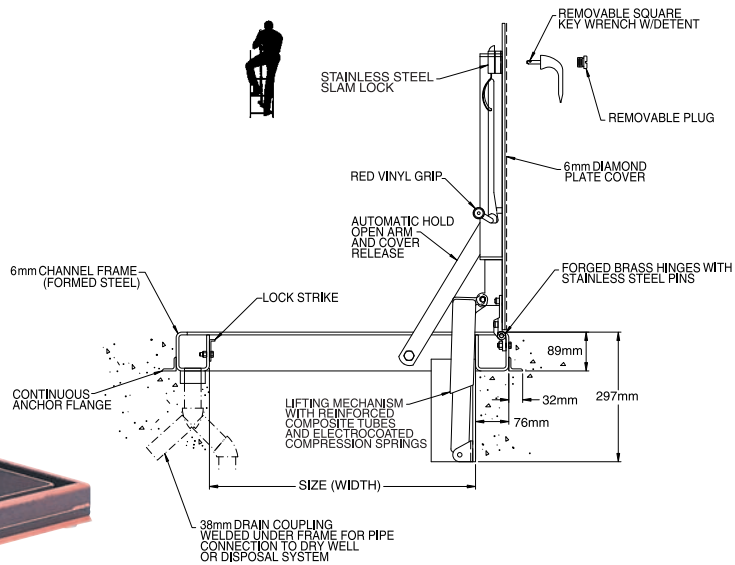
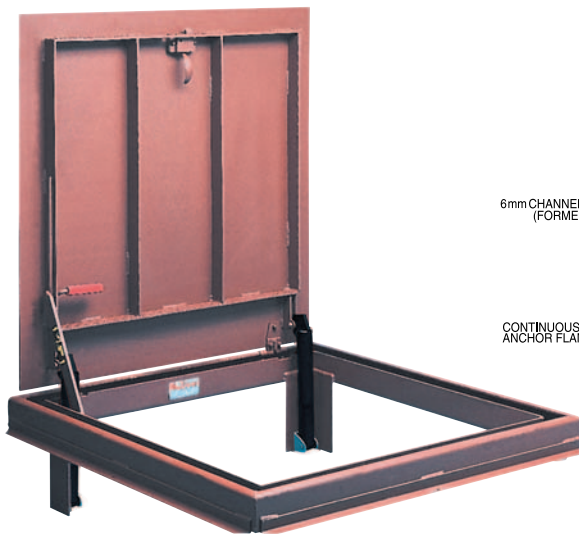
SIZE (mm)	ALUMINIUM	
	Model #	Weight (kg.)
(width x length)		
610 x 610	J-1AL H20	55
760 x 760	J-2AL H20	64
915 x 760	J-3AL H20	81
915 x 915	J-4AL H20	87
1065 x 1065	J-5AL H20	111
1220 x 760	JD-1AL H20	91
1220 x 1220	JD-2AL H20	132
1220 x 1830	JD-3AL H20	226
1525 x 1525	JD-4AL H20	207

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

Type J, JD Steel Drainage Door



Single or Double Leaf



Description:

Single or double leaf covers are constructed of 6mm diamond pattern plate and reinforced for a 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 6mm steel

Cover

Diamond-pattern tread plate reinforced for 1464 kg/m² live load

Frame

Formed channel frame with full anchor angle welded around the perimeter. A 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 10mm 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 with electrocoated acrylic finish. Slam lock and all fasteners are Type 316 stainless steel. All other hardware is zinc plated/chromate sealed.



Standard Sizes and Weights

SIZE (mm)	STEEL	
	Model #	Weight (kg.)
(width x length)		
610 x 610	J-1	81
760 x 760	J-2	105
915 x 760	J-3	124
915 x 915	J-4	136
1065 x 1065	J-5	182
1220 x 760	JD-1	166
1220 x 1220	JD-2	226
1220 x 1830	JD-3	296
1525 x 1525	JD-4	301

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

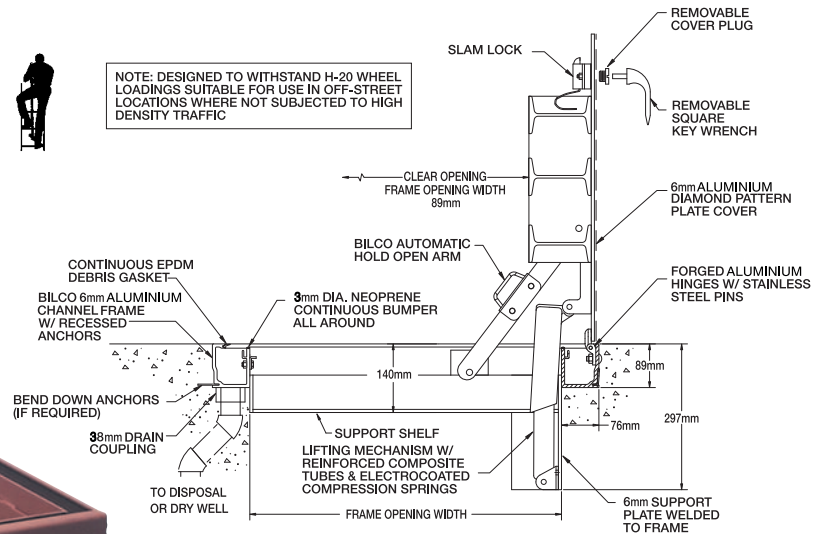
Type J-H20, JD-H20 Steel Drainage Door



Single or Double Leaf



NOTE: DESIGNED TO WITHSTAND H-20 WHEEL LOADINGS SUITABLE FOR USE IN OFF-STREET LOCATIONS WHERE NOT SUBJECTED TO HIGH DENSITY TRAFFIC



Description:

Designed to withstand vehicular traffic in off-street locations. Single or double leaf covers are constructed of 6mm diamond pattern plate and reinforced for AASHTO H-20 wheel loading (14,500 kg. axle load). Features reinforced composite spring tubes, heavy forged brass hinges, and zinc plated/chromate sealed hardware.

Specifications:

Material

Cover and frame are 6mm 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 the perimeter. A 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 10mm 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 with electrocoated acrylic finish. Slam lock and all fasteners are Type 316 stainless steel. All other hardware is zinc plated/chromate sealed.

Standard Sizes and Weights

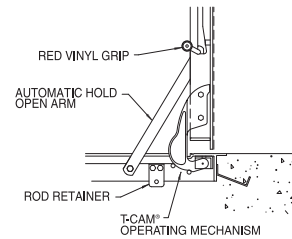
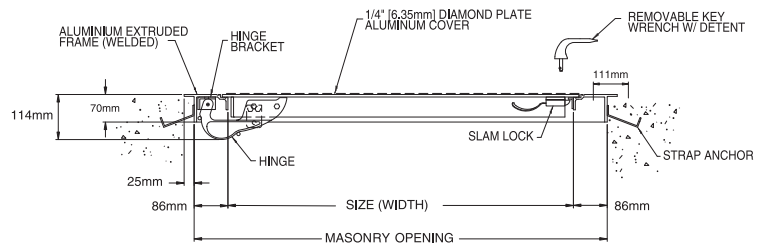
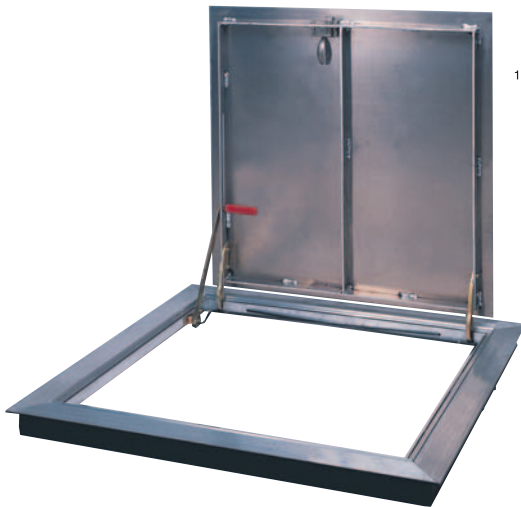
SIZE (mm)	STEEL	
	Model #	Weight (kg.)
610 x 610	J-1 H20	113
760 x 760	J-2 H20	159
915 x 760	J-3 H20	193
915 x 915	J-4 H20	222
1065 x 1065	J-5 H20	288
1220 x 760	JD-1 H20	241
1220 x 1220	JD-2 H20	370
1220 x 1830	JD-3 H20	560
1525 x 1525	JD-4 H20	535

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

Type K, KD Aluminium Non-Drainage Door



Single or Double Leaf



Description:

Single or double leaf covers are constructed of 6mm diamond pattern plate and reinforced for a 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 6mm aluminium

Cover

Diamond-pattern tread plate reinforced for 732 kg/m² live load

Frame

Extruded aluminium 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 aluminium with a bituminous coating applied to the exterior of the frame

Hardware

Zinc plated/chromate sealed



Standard Sizes and Weights

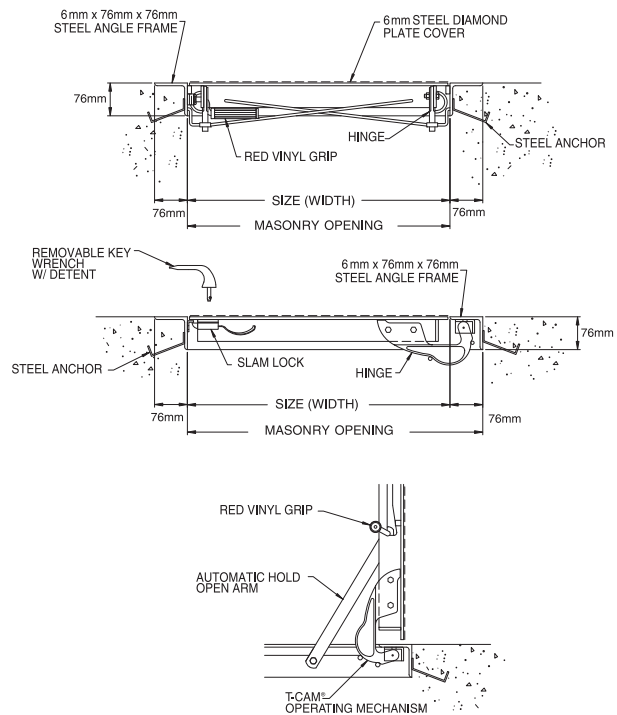
SIZE (mm)	ALUMINIUM	
	Model #	Weight (kg.)
(width x length)		
610 x 610	K-1	23
760 x 760	K-2	30
915 x 760	K-3	35
915 x 915	K-4	39
1065 x 1065	K-5	50
1220 x 1220	KD-2	69
1220 x 1830	KD-3	97
1525 x 1525	KD-4	101

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

Type Q Steel Non-Drainage Door



Single Leaf



Description:

Single leaf covers are constructed of 6mm diamond pattern plate and reinforced for a 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 6mm steel

Cover

Diamond-pattern tread plate reinforced for 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

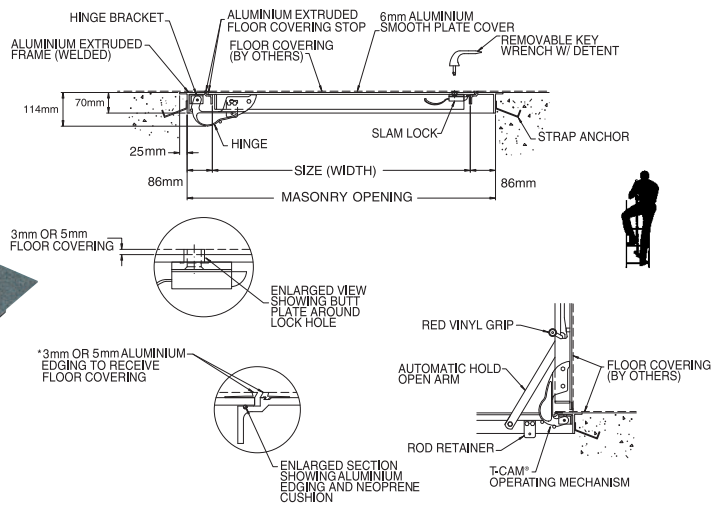
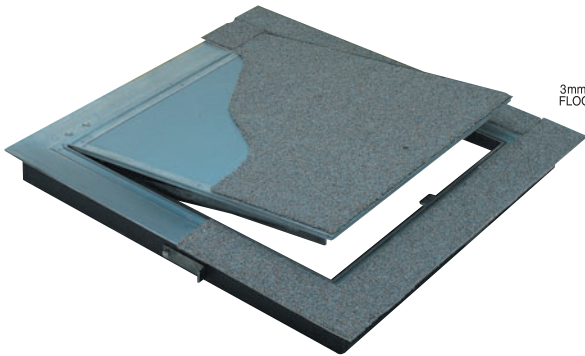
SIZE (mm) (width x length)	STEEL	
	Model #	Weight (kg.)
610 x 610	Q-1	55
760 x 760	Q-2	75
760 x 915	Q-3	86
915 x 915	Q-4	100

Type T, TD Aluminium Non-Drainage Door



Single or Double Leaf

Accepts Carpet and Composition Flooring



*Note: For direct glue down carpet (no pad), specify 5mm

Description:

Single or double leaf doors are virtually hidden in interior applications. Will accept carpet or composition flooring material 3mm or 5mm 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 6mm aluminium

Cover

Smooth plate reinforced for 732 kg/m² live load. Extruded aluminium molding adhered to the perimeter to accept floor-covering material [specify either 3mm or 5mm molding height].

Frame

Extruded aluminium angle frame with strap anchors bolted around the perimeter. Extruded aluminium molding fastened to the perimeter to accept floor-covering material [specify either 3mm or 5mm 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 aluminium with a bituminous coating applied to the exterior of the frame

Hardware

Zinc plated/chromate sealed



Standard Sizes and Weights

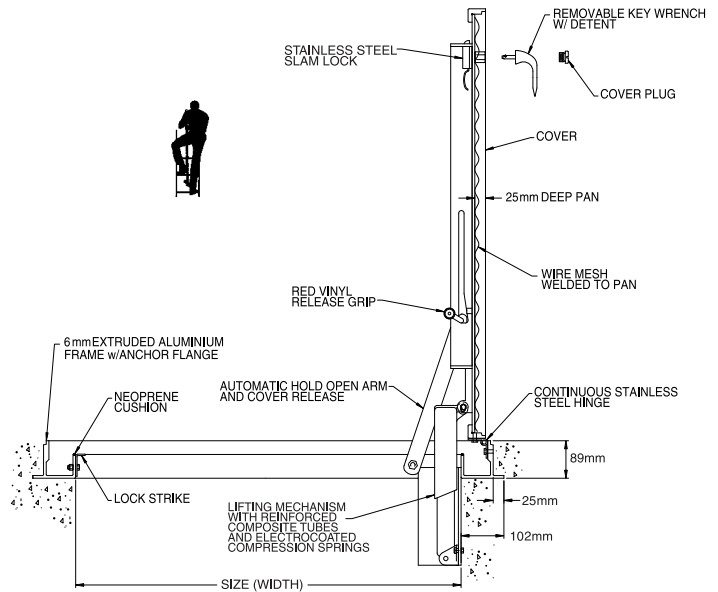
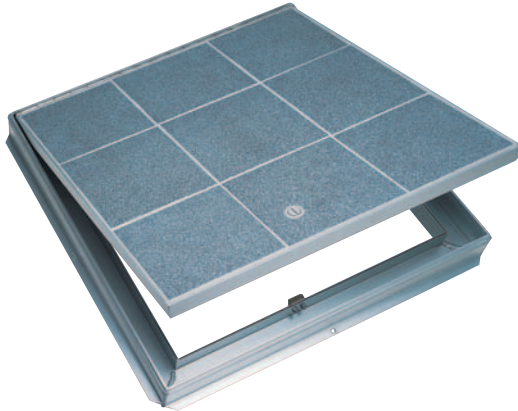
SIZE (mm) (width x length)	ALUMINIUM	
	Model #	Weight (kg.)
610 x 610	T-1	24
760 x 760	T-2	31
915 x 760	T-3	37
915 x 915	T-4	41
1065 x 1065	T-5	51
1220 x 1220	TD-2	78
1220 x 1830	TD-3	102
1525 x 1525	TD-4	104

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

Type TER, TRD Aluminium Non-Drainage Door -

Single or Double Leaf

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 25mm 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 6mm aluminium

Cover

Smooth plate reinforced for 732 kg/m² live load. Cover designed with 25mm fillable pan for field installation of architectural flooring material (specify flooring material including type, thickness, and weight).

Frame

Extruded aluminium 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 aluminium with a bituminous coating applied to the exterior of the frame

Hardware

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

Standard Sizes and Weights

SIZE (mm)	ALUMINIUM	
(width x length)	Model #	Weight (kg.)
610 x 610	TER-1	45
760 x 760	TER-2	50
915 x 760	TER-3	54
915 x 915	TER-4	59
1065 x 1065	TER-5	75
1220 x 1220	TRD-2	91
1220 x 1830	TRD-3	125
1525 x 1525	TRD-4	129

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

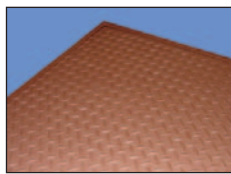


Type JFR Steel Fire-Rated Floor Door



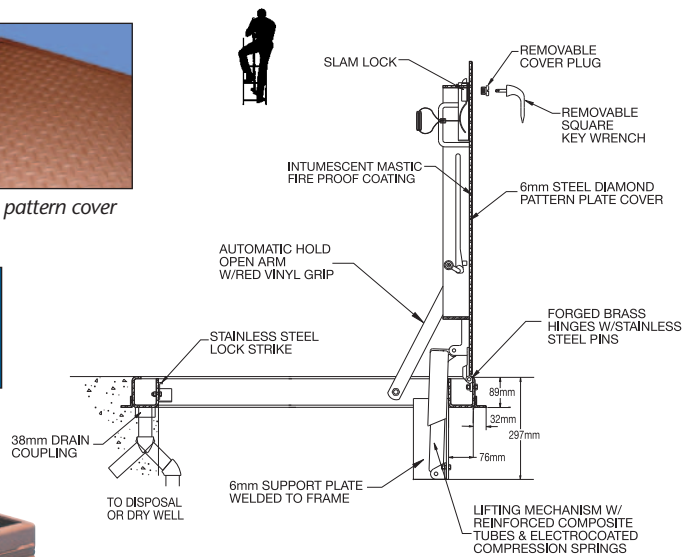
Single Leaf

One-Hour Fire-Rating



Diamond pattern cover

Complies with
BS476:
Part 22



Description:

Fire-rated floor doors allow you to specify convenient access through a fire-rated floor without jeopardizing fire code compliance. Doors contain flames and limit heat transmission between fire-rated floor/ceiling assemblies, and feature fire-proof coating, balanced cover operation, and are available with a specially designed closing mechanism to ensure the door closes automatically when a fire occurs.

Specifications:

Material

Cover and frame are 6mm steel

Cover

Diamond pattern plate reinforced for 1464kg/m² live load. Note: special sizes are available, but certification only available with a maximum size of 1.14 m². Intumescent fire coating applied to the underside of the cover.

Frame

Formed channel frame with anchor angle welded around the perimeter. Intumescent fire coating applied on the interior surfaces of the frame.

Hinges

Heavy forged brass hinges with 10mm Type 316 stainless steel hinge pins

Latch

Type 316 stainless steel slam lock with fixed interior handle and removable exterior turn/lift handle. (Note: can be supplied with self-closing mechanism on sizes 762 mm in width and greater when specified, see picture on page 33).

Lift Assistance

Compression spring operators enclosed in telescopic tubes. Automatic hold-open arm with grip handle release. 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 BS476: Part 22 and approved for a 1-hour fire rating when exposed to fire from the underside

Finish

Alkyd base red oxide primer

Hardware

Engineered composite compression spring tubes. Steel compression springs with electrocoated acrylic finish. All other hardware is zinc/plated and chromate sealed.

Standard Sizes and Weights

SIZE (mm)	STEEL Diamond Plate Cover	
	Model #	Weight (kg.)
610 x 610	JFR-1	99
760 x 760	JFR-2	132
915 x 760	JFR-3	158
915 x 915	JFR-4	176
1065 x 1065	JFR-5	236
760 x 1220	JFR-6	190
915 x 1220	JFR-7	221
760 x 1525	JFR-8*	227
915 x 1525	JFR-9*	265
915 x 1830	JFR-10*	306

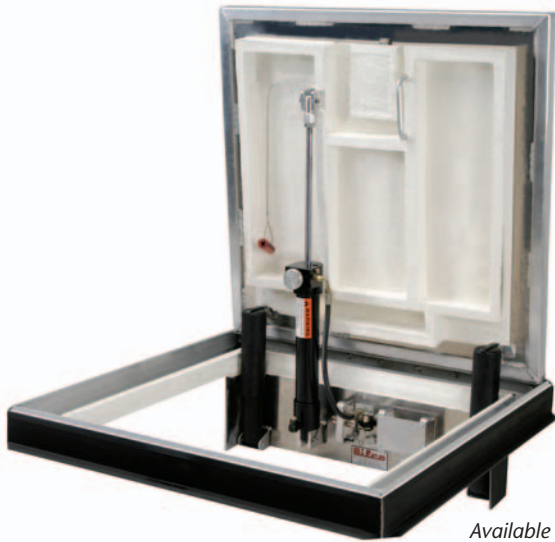
*Models without BS476: Part 22 certification

Type FR Aluminium Fire-Rated Floor Door

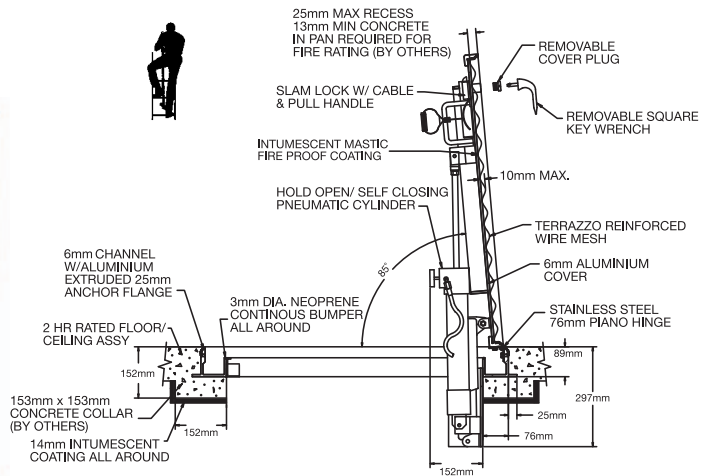


Single Leaf

Two-Hour Fire-Rating



Available without self-closing mechanism



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 6mm aluminium

Cover

Aluminium plate reinforced for 732 kg/m² live load. Intumescent fire coating applied to the underside of the cover. Designed with 25mm fillable pan for field installation of architectural flooring material up to 13mm 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 25mm of concrete).

Frame

Extruded aluminium 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 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 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 aluminium with a bituminous coating applied to the exterior of the frame

Hardware

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



New self-closing mechanism

- Simplified design takes up less frame area
- Requires lower maintenance
- More cost effective
- UL Listed

Complies with
BS476:
Part 22
for integrity

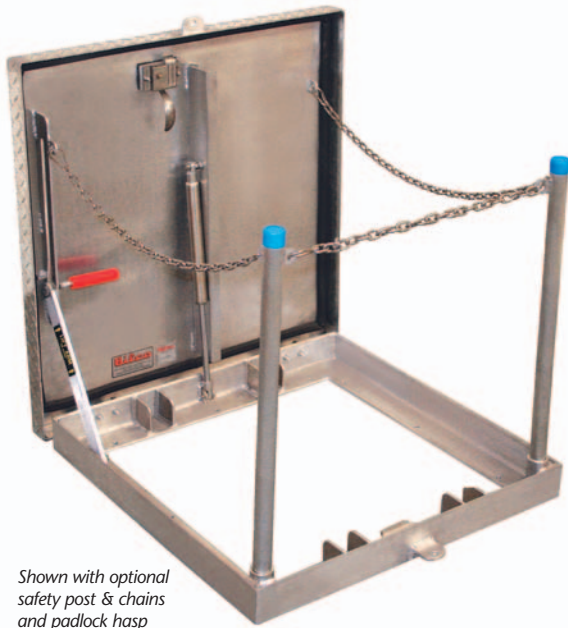
Standard Sizes and Weights

SIZE (mm)	ALUMINIUM		
(width x length)	Model #	Clear Opening (mm)	Weight (kg.)
760 x 760	FR-2	740 x 600	123
915 x 760	FR-3	890 x 600	126
915 x 915	FR-4	890 x 750	148
1065 x 1065	FR-5	1015 x 910	167
760 x 1220	FR-6	735 x 1060	149

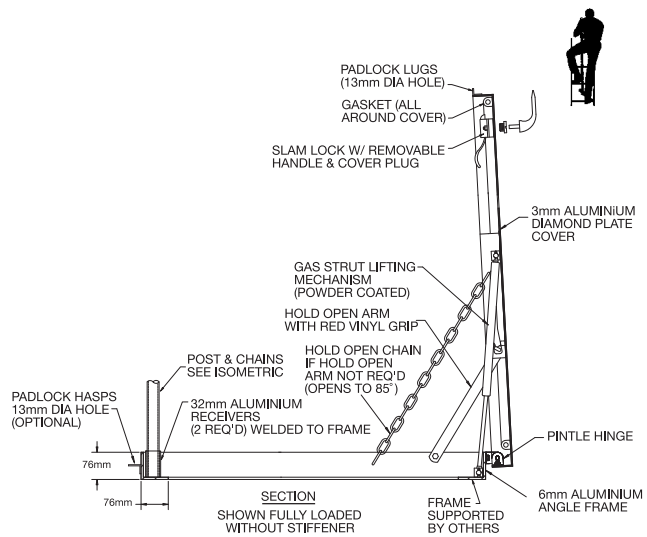
Type SM Surface Mount Access Door



Single Leaf



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. It's gasketed, over-lapping cover design is weather-tight to prevent debris and other pollutants from entering the opening.

Specifications:

Material

3mm aluminium diamond plate cover and 6mm aluminium angle frame.

Cover

Diamond-pattern tread plate reinforced for 5 kpa live load.

Frame

6mm x 76mm x 76mm angle frame with internal mounting flange and 11mm diameter anchor holes.

Gasket

Extruded EPDM rubber gasket permanently adhered to cover.

Hinges

Heavy-duty, stainless steel pintle hinges with 10mm 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

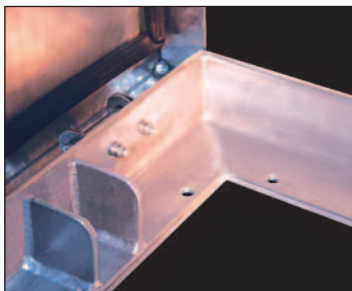
Gas strut lifting mechanism with powder-coat finish. Automatic hold-open arm with grip handle release.

Finish

Mill Finish aluminium.

Hardware

Type 316 stainless steel unless otherwise specified.



Internal Surface Mounting Flange



Concealed Stainless Steel Hinges

Standard Sizes and Weights

SIZE (mm)	ALUMINIUM	
	Model #	Weight (kg.)
(width x length)		
610 x 610	SM-1	28
760 x 760	SM-2	32
915 x 760	SM-3	35
915 x 915	SM-4	39
1065 x 1065	SM-5	45

Special Application Doors

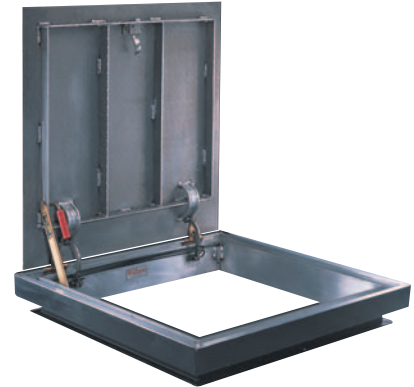


Along with its complete line of floor doors, Bilco's extensive custom-design capabilities can provide you with the exact door you need for your unique applications. Contact The Bilco Company for more information on any of these products.



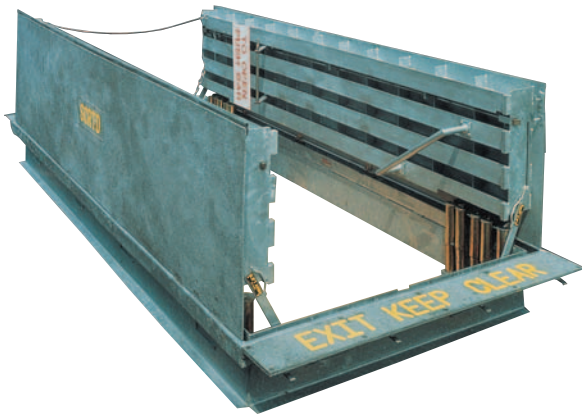
Doors for Extreme Loading Conditions

The **Type HLC** is specially designed for extreme loading conditions generated by vehicles such as large aircraft, heavy equipment, and forklift trucks.



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.

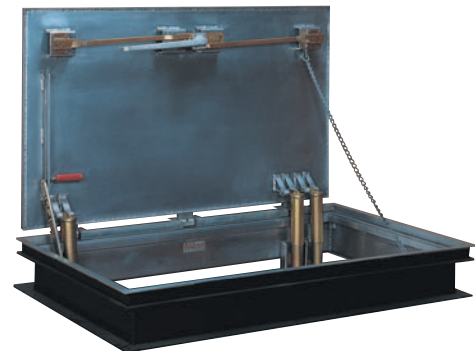


Emergency Evacuation Doors for Transit Systems

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 operation. Other important features include H-20 reinforcing, handrails, custom signage, and a slip-resistant cover finish.

Floodtight Access Doors

The **Type WT** door is watertight under a 8m head of water. Designed for installation on controlled environment vaults (CEVs) in areas where incidental flooding may occur.



Special Sizes

Type JD and 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.

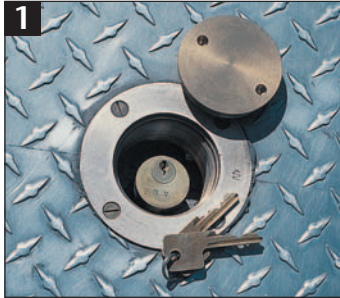
Odour Control Access Doors *(not shown)*

Type J-AL single leaf doors can be supplied with provisions for odour control by specifying **Type J-AL-R**. Doors are designed to contain odours and reduce the air leakage rate in odour emitting environments. Tested under a 25mm column of water, the **Type J-AL-R** door provides an air infiltration rate of less than 28dm³/min per lineal 30.5cm of cover perimeter.

Bilco floor 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:



1
Cylinder lock with a keyway protected by a threaded cover plug



2
Recessed padlock hasp covered by a flush hinged lid



3
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 show, Bilco's engineering department can custom design products to meet your security needs.

Special Finishes

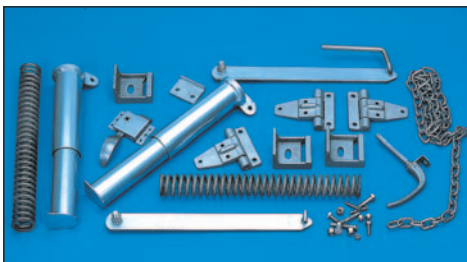
Where specified, Bilco Model J, JD, and Q doors and frames can be supplied with a hot-dip galvanized finish (ASTM A-123). All aluminium doors can be supplied with an anodized finish. Other custom finishes are available when specified.

Stainless Steel Hardware

For installation in highly corrosive environments or when prolonged exposure to hot water or steam is anticipated, all Bilco steel and aluminium doors are available with Type 316 stainless steel hardware throughout. Included are all parts of the latch and lifting mechanism assemblies; hold-open and guide arm and guides; and all brackets, hinges, pins, and fasteners.

Other Options

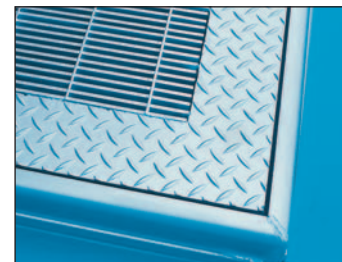
- Steel or aluminium grating
- Submersible pump guide rail brackets
- Metal enclosed insulation
- Slip resistant coatings
- Drop-in installation modifications
- Handrails
- Panic hardware
- Snow and ice melting cables
- Electric motor operation.



Stainless Steel Hardware



Special Finishes



Grating Panel Covers

LadderUP® Safety Post

LadderUP® Safety Posts provide easier, safer ladder access through roof hatches, floor 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

Standard Sizes and Weights

Model	Material/Finish	Weight (kg)
LU-1	Steel, black powder coat	11
LU-2	Steel, hot dip galvanized	11
LU-3	Type 304 Stainless Steel	11
LU-4	Aluminium, mill finish	7



This LadderUP® specification symbol signifies the Bilco roof hatch and access door products for which LadderUP® and Pogo Pole® portable safety poles* are suitable.

* The Bilco Pogo Pole® portable safety post is an economical alternative to the LadderUP® for users with multiple applications. With the Pogo Pole® system, only the receiver is installed permanently on the ladder while the portable safety post is carried on the service vehicle.



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.



Fall Protection Grating for Floor Doors

NEW! from Bilco! Fall protection grating system is now available as a factory installed option on the following Bilco Floor Doors:

- Type J, JD, J-AL, JD-AL
 - 1464 kg/m² Reinforced Doors
 - H20 Reinforced Doors
- Available on all standard sizes
- Also available for special sizes, contact Bilco for more information.

In addition, retrofit kits are also available for field installation on the doors noted above.



Standard Features and Benefits

- Provides a permanent means of fall protection under access doors
- Fibreglass panel includes lift assistance and an automatic hold open arm for ease of operation and user safety
- Equipped with stainless steel hardware for maintenance-free performance
- Grating panel rated for a 1464 kg/m² live load
- Grate operates independently of the cover reinforcing
- 25-Year warranty

Specifications

Grating panel(s) shall be fibreglass molded in one piece with load bearing bars in both directions to allow for use without continuous side support. Panel shall be designed to support a 1464 kg/m² live load and be high visibility safety orange in colour. Torsion rod lift assistance shall be provided for ease of operation and a hold open arm shall also be included to automatically lock the panel in the fully open 90 degree position. A release handle shall be provided to allow the grating panel to be closed and there shall be a provision for locking the panel to prevent unauthorized access. Hold open arm shall be aluminium with a stainless steel release handle. All other hardware, including mounting brackets, hinges, torsion rod, padlock loop, and fasteners, shall be Type 316 stainless steel. Manufacturer shall provide a twenty-five year warranty against defects in material and workmanship.

In addition to our commercial access products, The Bilco Company also manufactures a complete line of residential products. Residential products are designed to improve the look and function of basement areas, making them as comfortable and useful as any other room in the home.



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 steel and high-density polyethylene construction (shown).



ScapeWEL® Window Well System

Adds natural daylight and ventilation to basement rooms, making them as warm and comfortable as any area in the home. Window well system meets building code requirements for emergency egress and is constructed of non-corrosive materials for many years of maintenance free service. Complete system consists of a window well, egress size foundation window, and window well cover options.



ScapeVIEW™ Basement Windows

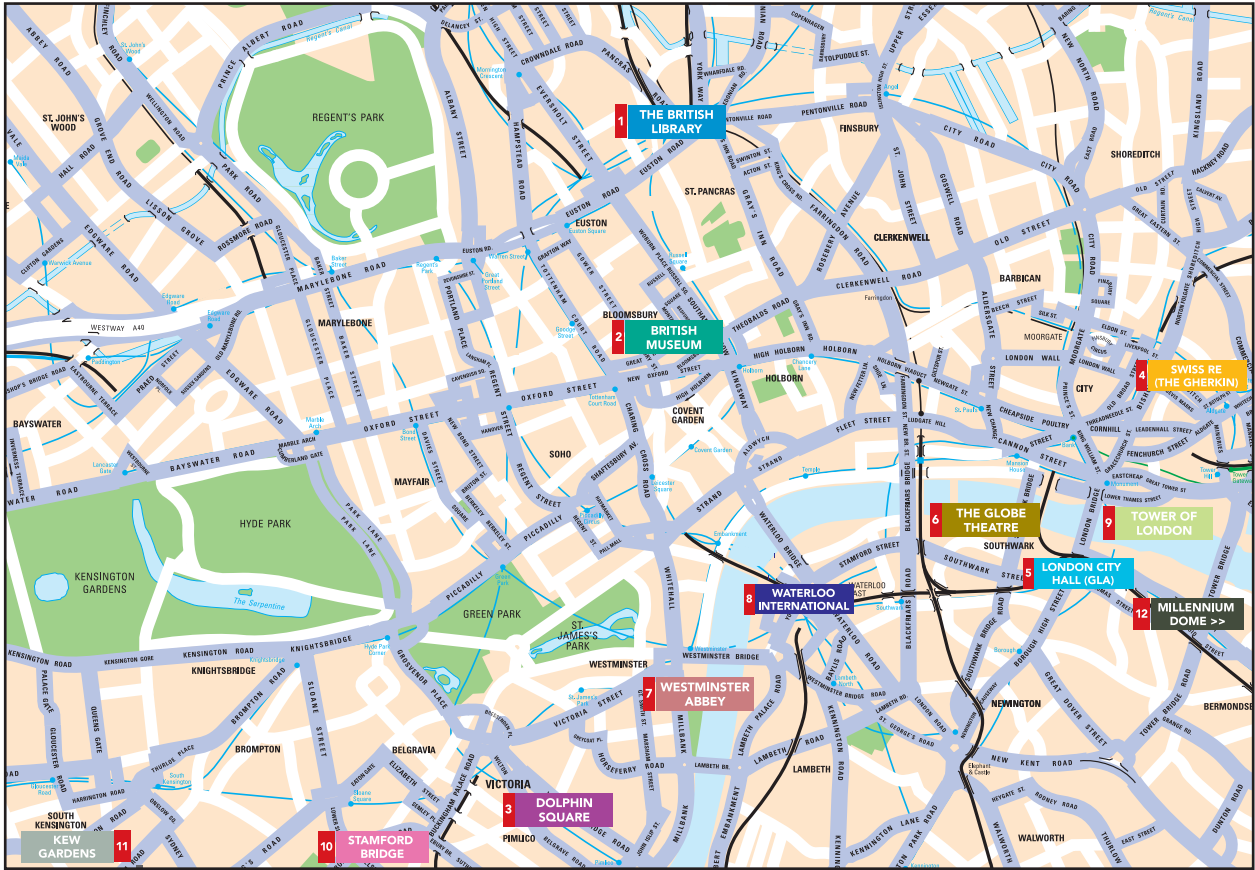
Bilco basement windows are designed as a two-piece system that includes a pour-in-place window buck and snap in window unit. System features corrosion resistant vinyl construction, an energy efficient window unit, and an innovative design that reduces installation costs. Hopper style windows (Series 650) and full egress sizes (Series 6000) are available.

Get More Out of Your Basement

Bilco — The Capital Connection



Bilco access hatches have been installed widely on prestigious projects throughout the UK. Here is just a small selection of 'Bilco London landmarks'



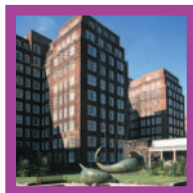
1. The New British Library

Photo: ©Richard Turpin/arcaid.co.uk
Architect: Collin St. John Wilson



2. The British Museum

Photo: ©Richard Bryant/arcaid.co.uk
Architect: Foster and Partners



3. Dolphin Square

Photo: ©Richard Glover/arcaid.co.uk
Architect: Stanley Gordon Geeves



4. Swiss Re, Gherkin

Photo: ©Richard Bryant/arcaid.co.uk
Architect: Foster and Partners



5. London City Hall, GLA

Photo: ©Benedict Luxmoor/arcaid.co.uk
Architect: Foster and Partners



6. The Globe Theatre

Photo: ©Richard Turpin/arcaid.co.uk
Architect: Pentagram Design



7. Westminster Abbey

Photo: ©Mark Fienes/arcaid.co.uk
Clerk of Works -Geo Burroughs



8. Waterloo International

Photo: ©Richard Bryant/arcaid.co.uk
Architect: Nicholas Grimshaw



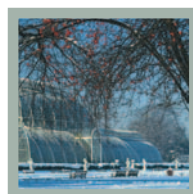
9. Tower of London

Photo: ©Mark Gilmer/arcaid.co.uk
Architect: Foster and Partners



10. Stamford Bridge

Photo: ©Martine Hamilton Knight
arcaid.co.uk
Architect: KSS Design Group



11. Kew Gardens

Photo: ©Richard Bryant/arcaid.co.uk
Architect: Decimus Burton



12. The Millennium Dome

Photo: ©Nicholas Kane/arcaid.co.uk
Architect: Richard Rogers Partnership



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