



ROOF ACCESS HATCHES
OPERATION AND MAINTENANCE MANUAL

Customer Ref:

SO:

SURESPAN - IN TOUCH WITH TOMORROW

OPERATION AND MAINTENANCE MANUAL

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INTRODUCTION

Surespan is the world's leading manufacturer of bespoke assist-lift access covers and roof hatches. The company has a wide range of access products to choose from, which include:

- Assist Lift Roof Access Hatches (various types)
- Smoke Ventilators (a variety of designs and openings)
- Floor Access Covers; FACTA Class A – F Loadings
- Jakdor Internal Ceiling & Wall Access Panels
- Polycarbonate Roof Lights
- Floor Ducting Systems
- Ladders (various types and a range of accessories)
- Sureguard Safety Rails

Surespan offers the complete package regarding access and escape. Most products can be supplied as competitively priced standard units or bespoke fabrications for special requirements.

Surespan has supplied a diverse range of project types including airports, ports, sports and leisure facilities, industrial and commercial buildings, high quality office and residential accommodation, shopping centres, retail outlets, education and medical facilities and infrastructure projects such as power generation and treatment plants to name a few. Surespan has supplied special products to prestigious, innovative and amazing projects all around the world. A project reference list is available.

Surespan is a recognized leader regarding innovation and design. Products incorporate the most cutting-edge technology regarding safety, operation and the environment. Examples of this include the use of self-cleaning, walk-on and fire-rated glass, pressure-sensitive edges, solar-powered energy sources, thermal-break profile design, improved wind resistance and efficient heat and sound insulation.

Surespan is in touch with tomorrow!

HEALTH & SAFETY

The law says you must organise and plan all roof work so it is carried out safely. All work on roofs is **highly dangerous**, even if a job only takes a few minutes. Proper precautions are needed to control the risk.

Those carrying out the work must be trained, competent and instructed in use of the precautions required. A 'method statement' is the common way to help manage work on roofs and communicate the precautions to those involved.

On business premises contractors should work closely with the client and agree arrangements for managing the work.

Key issues are:

- Safe access to roofs
- Roof edges and openings
- Fragile surfaces

What you need to know

Everyone involved in managing or carrying out work on roofs should be aware of the following facts:

High risk:

Almost one in five deaths in construction work involve roof work. Some are specialist roofers, but many are just repairing and cleaning roofs.

Main causes:

The main causes of death and injury are falling from roof edges or openings, through fragile roofs and through fragile rooflights.

Equipment and people

Many accidents could be avoided if the most suitable equipment was used and those doing the work were given adequate information, instruction, training and supervision.

Safe access

Safe access to a roof requires careful planning, particularly where work progresses along the roof.

Typical methods to access roofs are:

- general access scaffolds;
- stair towers;
- fixed or mobile scaffold towers;
- mobile access equipment;
- ladders; and
- roof access hatches.

HEALTH & SAFETY

Roof edges and openings

Falls from roof edges occur on both commercial and domestic projects and on new build and refurbishment jobs. Many deaths occur each year involving smaller builders working on the roof of domestic dwellings.

Sloping roofs

Sloping roofs require scaffolding to prevent people or materials falling from the edge. You must also fit edge protection to the eaves of any roof and on terraced properties to the rear as well as the front. Where work is of short duration (tasks measured in minutes), properly secured ladders to access the roof and proper roof ladders may be used. Flat roofs: falls from flat roof edges can be prevented by simple edge protection arrangements – a secure double guardrail and toeboard around the edge.

Fragile surfaces

Always follow a safe system of work using a platform beneath the roof where possible. Work on or near fragile roof surfaces requires a combination of stagings, guard rails, fall restraint, fall arrest and safety nets slung beneath and close to the roof.

Fragile roofs

All roofs should be treated as fragile until a competent person has confirmed they are not. Do not trust any sheeted roof, whatever the material, to bear the weight of a person. This includes the roof ridge and purlins.

Fragile rooflights are a particular hazard. Some are difficult to see in certain light conditions and others may be hidden by paint. You must provide protection in these areas, either by using barriers or covers that are secured and labelled with a warning.

SRHP MANUAL ACCESS HATCH (GAS SPRING)

SO

SRH Aluminium Manual Access Hatch (Gas Springs).

Please read all of these instructions before starting installation.

1. First action:
Unpack all contents and check against drawing provided (SO). Carefully read all instructions and drawings prior to fitting the unit, ensuring that the method of assembly and fixing is fully understood. Ensure that the structure to which the unit frame is to be fixed is capable of supporting the unit at rest and in use.
2. General:
The hatch units are manual opening and closing and are fitted gas struts. The gas struts are intended to offer a "balanced action" on opening. The gas struts are pre-fitted at works and the hatch operation tested and set. There should be no need to adjust the gas strut pressure again when re-fitted.
3. The unit is to be supported on a purpose made upstand (by others) on all four edges. Ensure that the upstand top faces are level and true to each other. The fixing points for the unit can be back marked through the frame once the unit is in position. (Fixing bolts etc supplied by others).
4. Using a suitable method of lifting (eg. Soft slings) lower the unit onto the supporting structure and manoeuvre into position.

It is the **installer's responsibility** to determine a satisfactory method of lifting/positioning the unit as Surespan Ltd has no knowledge of site conditions or access.

Mark out the fixing holes through the predrilled holes in the unit frame, drill suitably sized holes for the fixings, clean away drilling debris and then loose bolt the unit frame in position.

Check the final level of the unit frame and shim the underside of the frame if necessary to achieve a level position. It is important that the frame is supported along its length and if it is necessary to pack up the frame to achieve a level condition then suitable packing should be used along the length of the frame. We recommend that the unit be bedded onto a bead of ribbon mastic sealant to provide an airtight seal between the fixing flange and the upstand. Finally tighten fixing bolts fully to secure frame.

5. Gas strut lower brackets:
The brackets protrude below the unit frame and require to be solidly fixed back to the structure. The brackets should be perpendicular to the unit frame and there should be no gap between the bracket and the structure. Use shims/packing to solidly mount the bracket if required and firmly bolt in place.
6. In order to refit the gas springs (see also the separate gas spring fitting instructions sheet). The internal force of the gas spring means that it cannot be compressed by hand and will require the lid fully open to accommodate its length between the brackets. To fit the gas springs, align its bottom fixing point with the holes in the lower bracket and insert bolt/nut/spacers supplied and tighten. This point needs to rotate so do not over tighten bolt.
7. Check operation of hatch by opening and closing fully. Check that the hinges and gas springs operate smoothly and check that there is no movement or flexing of the hinged side of the frame or the lower gas spring brackets

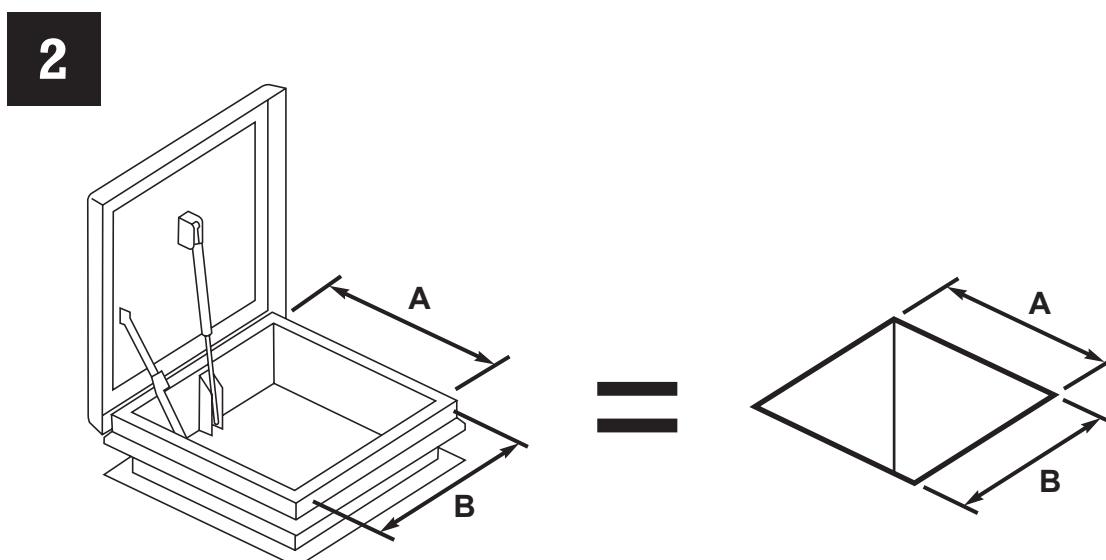
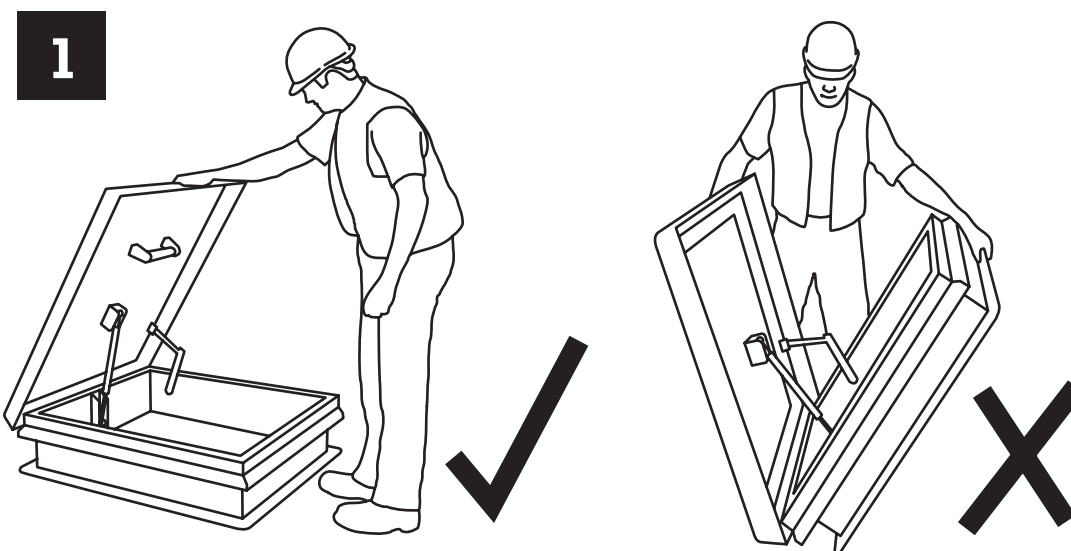
FITTING SRH ROOF HATCH

Fitting SRH Roof Hatch

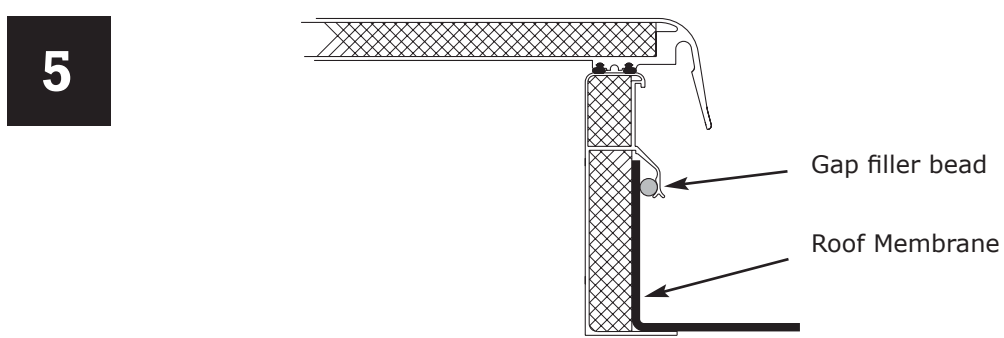
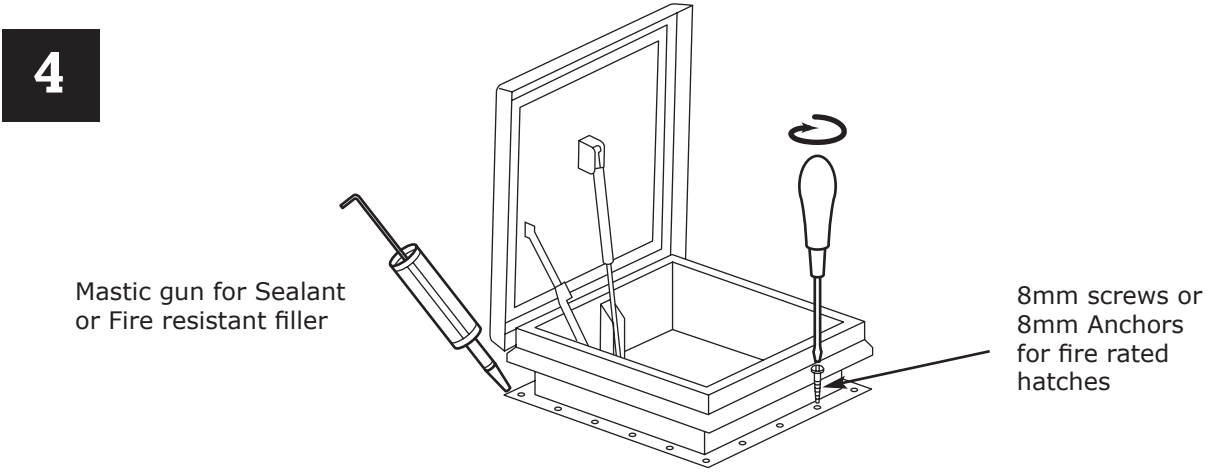
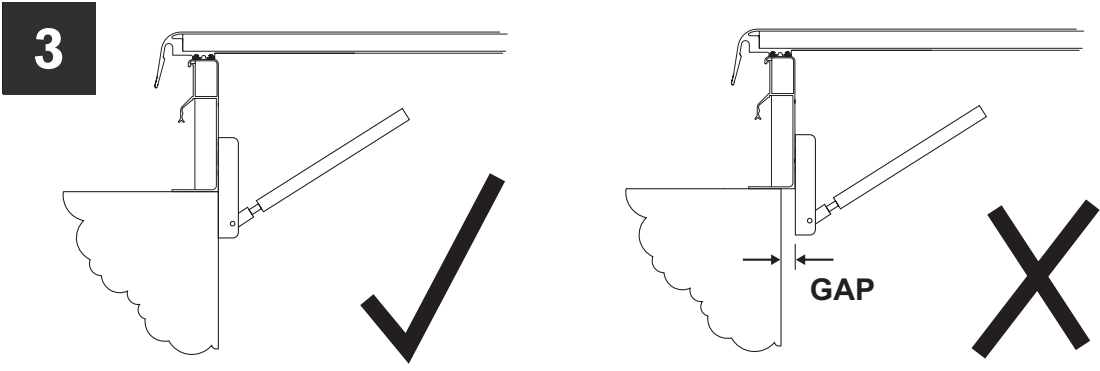
1. Check structural opening size with clear opening size of access cover.
2. Place Roof Hatch in position and fix down with adequate fixings. If fire rated it is recommended that you use a fire resistant mastic for sealing the frame to the concrete.
3. It is important that you do not try to open the lid before being securely fastened down as the frame may open very fast.
4. The gas spring brackets that are bolted to the frame should always be packed up if there is a gap behind them.

This only applies if the brackets are protruding past the frame into the structural hole.

5. When cover is fixed into position, try opening the lid via square 'Tee' key, handle or any device that you have requested to be fitted.
6. One person should easily open the lid without any real effort applied.
7. There is a lip incorporated into the frame for use of flashing and making water tight.



FITTING SRH ROOF HATCH



FITTING GAS SPRINGS

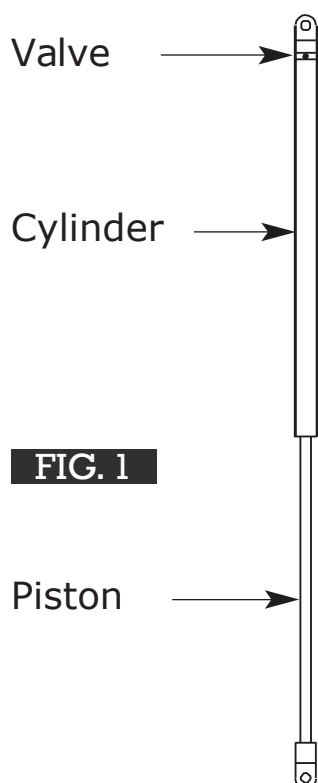
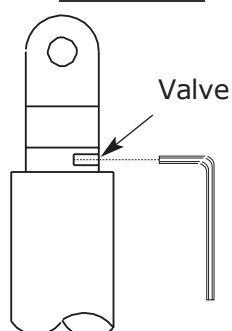


FIG. 1

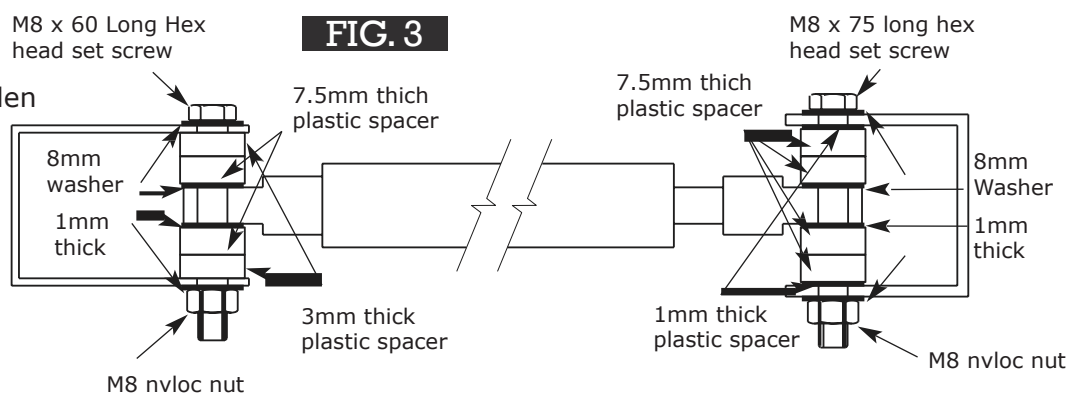
Note the access cover must be fully assembled and fixed into position before any of the following: (See the relevant product fitting instructions).

1. Place the cover in position and fix.
2. The gas spring brackets must be backed up so there is no room for movement.
3. Open lid and prop up safely in position.
4. Position the gas spring to the bracket with the piston pointing down Fig.1. Each gas spring is labelled to the position on the access cover.
5. Gas spring leg Fig.3
Put flat washer on the M8 x 75 long hex head bolt, slide through hole in bracket, put one 1mm white spacer on bolt, then two 7.5mm white spacers on the bolt, followed by an 8mm flat washer, feed through the gas spring and put an 8mm flat washer, then two 7.5mm spacers on bolt, followed by a 1mm spacer. Push bolts completely through holes and put washer and nyloc nut on bolt and tighten.
6. Gas Spring Bracket on Lid Fig.3
Put flat washer on the M8 x 60 long hex head bolt, slide through hole in bracket, put one 3mm white spacer on bolt, then one 7.5mm white spacers on the bolt, followed by an 8mm flat washer, feed through the gas spring and put an 8mm flat washer, then one 7.5mm spacers on bolt, followed by a 3mm spacer.

FIG. 2



Push bolts completely through holes and put washer and nyloc nut on bolt and tighten.



Variable Pressure Gas Spring Valve Adjustment

Fit the gas spring with the cylinder uppermost Fig. 1. The valve will be seen at the top of the cylinder.

Using the 2mm allen key provided, undo the allen screw just a fraction until gas can be heard escaping.

Fig.2. Retighten the allen screw almost immediately - Do not use excessive force.

Repeat the process until the required spring action is achieved.

Under no circumstances should the allen screw be removed.

Note: a slight mist of oil may sometimes be seen escaping from the vent hole, this is normal.

Safety Requirements

Gas springs are filled with Nitrogen at very high pressures and under no circumstances should they be opened, tampered with, or subject to excessive heat or tension.

Gas springs should always be treated with respect in the knowledge of the pressure internally.

As a pressurised item, it is recommended that they be returned to us for safe disposal at the end of their usual life.

As the nature of a gas spring is to lose its force over a long period of time, it is advisable to periodically check it's ability to operate as initially intended, preferably forming part of a planned maintenance structure. Replace if and when necessary.

OPERATION AND MAINTENANCE MANUAL

Operating instructions

Note: Before operating the cover always ensure that there is nothing on top of the lid and that the area in which the cover operates is free from obstructions and personnel.

Opening the lid (From above)

Turn the external handle 90 degrees to open the lid. By taking hold of the edge of the lid, this can be raised upward into its fully open position with minimal effort.

As the cover moves to its fully open position, the articulated arm of the hold open safety stay will automatically drop into place over a captive stud fixed to the frame. This stay is designed to resist the lid being accidentally closed, or in the unlikely event that the gas springs should both fail, the lid is held open. Always ensure that the stay is securely located in its correct locking location when the lid is open and before entering the space below the cover.

Opening the lid from below/or in emergency

In the event that the lid is closed and requires opening from below, the slam lock mechanism will operate the latch by turning the handle 90 degrees. Once the lid is unlocked gently push the lid to raise upward into its fully open position with minimal effort.

As the cover moves to its fully open position, the articulated arm of the hold open safety stay will automatically drop into place over a captive stud fixed to the frame. This stay is designed to resist the lid being accidentally closed, or in the unlikely event that the gas springs should both fail, the lid is held open. Always ensure that the stay is securely located in its correct locking location when the lid is open and before entering the space below the cover.

Closing the lid (From above)

In order to begin closing the lid it is necessary to disengage the hold open stay. With a slight "opening" pressure against the lid to relieve any weight on the stay, simply lift the lower end of the stay so that the end of the slot moves off the captive stud. Then begin closing the lid and the stay will travel to its rest position as the lid closes.

In order to close the lid it is necessary to overcome the pressure of the gas springs, but this does not require a great effort, and the weight of the lid itself will assist in closing.

The lid is then lowered down to its closed position ensuring that there is nothing obstructing the lid or between the lid and the frame.

At its final closing position the lid may require a little extra force to pass and engage the "slam lock". Do not hold the edges of the lid when closing to avoid injury. Pressure should be applied to the top face of the lid only.

Closing the lid (From below)

In order to begin closing the lid it is necessary to disengage the hold open stay. With a slight "opening" pressure against the lid to relieve any weight on the stay, simply lift the lower end of the stay so that the end of the slot moves off the captive stud. Then begin closing the lid and the stay will travel to its rest position as the lid closes.

In order to close the lid it is necessary to overcome the pressure of the gas springs, but this does not require a great effort, and the weight of the lid itself will assist in closing.

The lid is then pulled down to its closed position ensuring that there is nothing obstructing the lid or between the lid and the frame.

At its final closing position the lid may require a little extra force to pass and engage the "slam lock". Do not hold the edges of the lid when closing to avoid injury. Pressure should be applied to the top face of the lid only.

OPERATION AND MAINTENANCE MANUAL

Maintenance Guide

There is little maintenance required to the covers but the following will offer trouble free operation.

Keep the cover clean, both externally and internally as far as is practically possible.

Keep the side channels of the frame free of debris that might prevent the closing of the hatch, and blockage of the frame drainage points.

Seals

Periodically check the condition of the sealing strips around the inner perimeter of the frame. These strips act as a compressible seal and cushion for the lid. Wipe clean with a soft cloth and mild detergent solution. Check for damage and replace as necessary. These checks can be done whenever the cover is used and periodically at least once per month.

Gas springs

Should be kept clean and lubricated.

Check the gas springs for any signs of wear/ damage and check their smooth operation. Lubricate the fixing pins at each end of the spring with light machine oil.(Monthly). Clean/lubricate the shaft of the springs with a soft cloth wetted with WD40 or light machine oil. (Monthly).

Gas springs have an "O" ring seal to the shaft which has a self lubricating action in operation. It is important that the gas springs be operated regularly to maintain the condition of the "o" ring. (At least once per month).

Hinges

Ensure that the main hinges are kept clean and unobstructed and lubricate periodically with WD40 or light machine oil.

Slam lock

Periodically check the correct operation of the latch and panic lever. This item is internally greased and should not require additional lubrication.

SRHP

THERMALLY BROKEN ROOF HATCH

SRHP Overview

The Surespan SRHP Aluminium single leaf roof access hatch is thermally broken with 50mm CFC and HCFC free insulation with a U-value of 0.43W/m²K.

The hatch also incorporates safety hold open stay to prevent against accidental closure.

The lid is held shut by an internal stainless steel slam action cablock.

STANDARD FEATURES

- 300mm Upstand insulated
- Thermally Broken Roof Hatch
- Insulated U-value of 0.43W/m²K
- Curb Liner
- External in mill finish aluminium

Material:

Aluminium extrusions in 6063 -T6. Sheet aluminium where used will be 1050 H14.

Cover:

The thermally broken lid incorporates a sandwich of 50mm CFC and HCFC free insulation. The hatch also incorporates a safety hold open stay.

Locking:

The lid is held shut by a heavy duty grade 316 stainless steel Cablock with external padlockable handle.

Upstand:

Standard height 300mm upstand is filled with 50mm CFC and HCFC free insulation with external curb liner for flashing up against.

Operation:

Complete with gas spring assisted opening to ensure minimum amount of effort to open the double skinned aluminium lid. The lid will have the provision to lock in the open position with a safety hold open stay to prevent against accidental closure.

Finish:

External finished in mill finish aluminium
Internal & External powder coating can be requested to any RAL Colour.

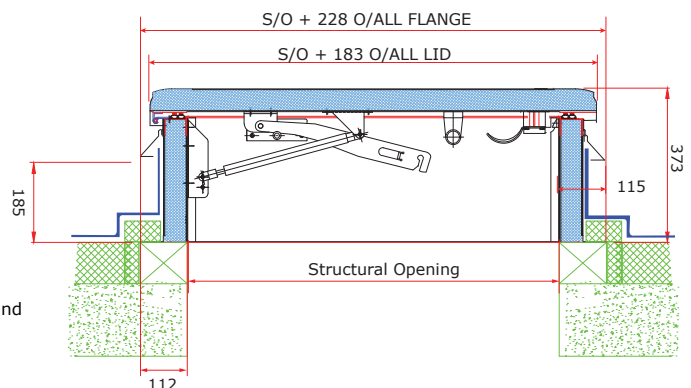
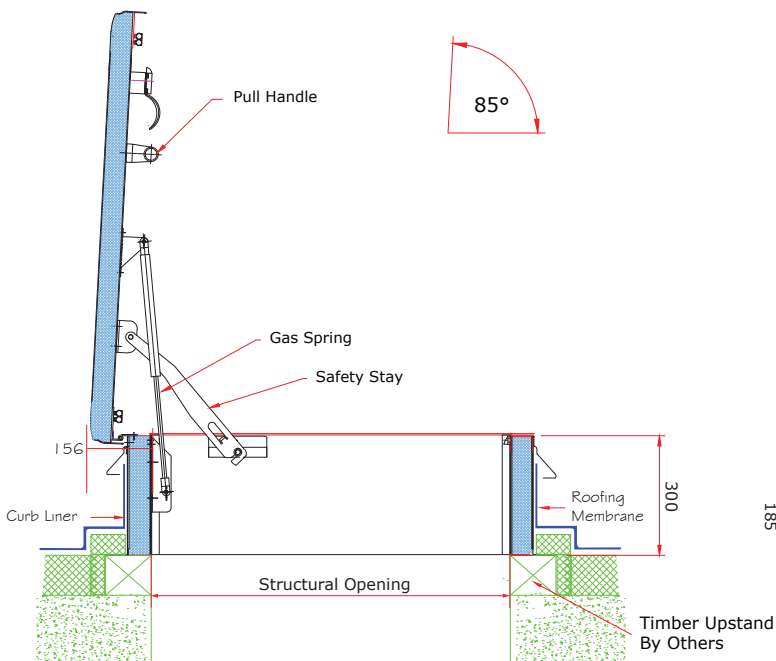
INSULATION OPTIONS

Model	U-Value
Standard Insulation	0.43 W/m ² K
Premium Insulation	0.37 W/m ² K
Superior Insulation	0.20 W/m ² K

Calculated to BS EN ISO 6946: 2007

STANDARD SIZES (BESPOKE AVAILABLE)

Model	S/O
SRHP 60.60	600 x 600
SRHP 75.75	750 x 750
SRHP 90.75	900 x 750
SRHP 90.90	900 x 900
SRHP 100.100	1000 x 1000
SRHP 75.150	750 x 1500
SRHP 120.120	1200 x 1200
SRHP 75.250	750 x 2500
SRHP 75.330	750 x 3300



AS BUILD DRAWING

WARRANTY

Warranty Information.

For equipment supplied to: _____ . **ref: SO** _____ .
Equipment: Type SRH

Surespan offers a Five Year guarantee of the structure (frame and lid) from date of# despatch, for materials and workmanship, provided that the equipment has been installed, used and maintained according to recommendations and specifications within the drawings and Operating/ Maintenance Instructions**.

Surespan offers a One Year return to factory guarantee for all proprietary*/O.E.M* supplied equipment from date of despatch provided that the equipment has been installed, operated and maintained according to recommendations within the drawings and Operating/Maintenance Instructions**.

All such items covered under our warranty are offered on a supply only basis, delivered to site.

Warranty items are supplied on a chargeable basis subject to receipt at our works of the failed item for testing (excepting Glazing panels). Following testing, items deemed to have failed in warranty will be credited.

With good housekeeping and maintenance to these products we would expect a life in excess of 20 years.

Stuart Turton.

Stuart Turton
Managing Director

*Proprietary/OEM equipment is any bought in item, not fabricated by Surespan such as but not limited to: Glass, Gas Springs, Electrical Actuators, Hydraulic cylinders, pumps and associated equipment, Controls, Switches, Wiring, Seals, Locks, and Hinges.

*Proprietary/OEM equipment is any bought in item, not fabricated by Surespan such as but not limited to: Glass, Gas Springs, Electrical Actuators, Controls, Switches, Wiring, Seals, Locks, and Hinges.

*Warranty on proprietary/ OEM equipment is on a "return to base" basis with shipping at owners cost. Agreed warranty items will be either repaired or replaced at Surespan's discretion and re-delivered to site.

*Glazing units replaced under warranty are supply only, delivered kerbside.

**The warranty of the structure covers the "on site repair or replacement" of materials and the site labour to carry out such repairs. It does not cover any associated plant or equipment required to either gain access to the repair or for lifting/hoisting of parts/ components or replacement units.

Surespan shall not be liable in any circumstances for any consequential or incidental loss of any kind, however caused, including in particular, and without prejudice to the generality of the foregoing, any loss arising as a result of interruption of production or loss of revenue, contracts or profits, or for any other damage suffered or incurred by the customer due to any defect in the goods. Surespan shall not be liable for any advice given or any services carried out by any 3rd party even if that party was recommended by Surespan.