

SMOKE EVACUATION / ROOF ACCESS / DAYLIGHTING / NATURAL VENTILATION

PYROPASS[®] EVOLUTION TREUIL

CE
0333



SKYDÔME[®]
La sécurité en toute clarté



PYROPASS® EVOLUTION TREUIL ANGLER ADAPTER PLATE VERSION

PYROPASS® EVOLUTION TREUIL

The PYROPASS® EVOLUTION TREUIL is a unit designed principally for heat and smoke evacuation, and for roof access. It is used on flat and low slope roof with waterproofing and on tiled or slate pitched roofs for all types of smoke evacuation, e.g. :

- public access buildings,
- industrial buildings,
- commercial buildings, offices,
- residential buildings...

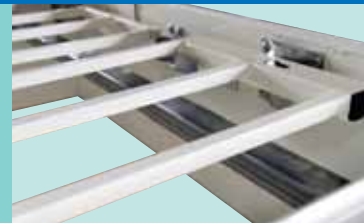
The PYROPASS® EVOLUTION TREUIL is a complete unit specially designed for stairwells.

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EVOLUTION TREUIL



1

ADVANTAGES

The PYROPASS® EVOLUTION TREUIL offers a total solution for protected stairwells.

Integrated mechanisms: the opening and closing mechanisms of the PYROPASS EVOLUTION TREUIL are completely contained within the height of the kerb as well in the opened as the closed position. This means that they do not impede the passage of other networks and the use of other equipment under the ceiling.

For opening dimensions **100 x 100** and **120 x 120** the **integrated mechanism** of the PYROPASS® EVOLUTION TREUIL is **fixed** on the side allowing easy roof access.

Finish: the PYROPASS® EVOLUTION TREUIL is available in steel and pre-coated in CLASSIC WHITE SKYDOME colour with a painted opening grill. Therefore, the PYROPASS® EVOLUTION TREUIL is getting an aesthetical part of the stairwell architecture.

Security: the PYROPASS® EVOLUTION TREUIL is equipped with a painted opening grill tested 1200 joules. This grill can be locked by using a secure padlock or a European standard barrel lock (not supplied).

The PYROPASS® EVOLUTION TREUIL is also supplied as standard with a retractable handle and a ladder attachment bar in galvanised steel.



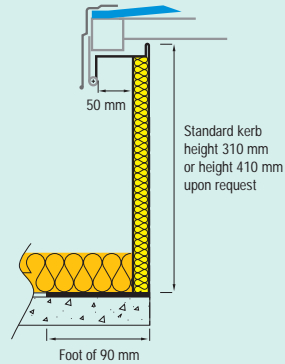
Adapted to the roof: Ideal for new roofs. The standard kerb is 310 mm high with a foot of 90 mm.

For refurbishment and renovation works and for use on an existing kerb:

- The adapter plate is 170 mm high with a foot of 83 mm (other sizes are available upon request). The design of our 100 x 100 cm adapter plate allows the adapter or the covering kerb to be passed inside an internal opening measuring 100 x 100 cm.

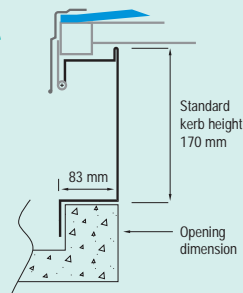
PYROPASS® EVOLUTION TREUIL - Height: 310 mm

NEW

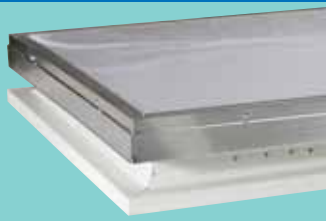
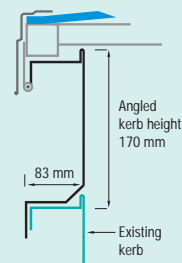


ADAPTER PLATE PYROPASS® EVOLUTION TREUIL Height: 170 mm

RENOVATION



ADAPTER PLATE PYROPASS® EVOLUTION TREUIL Angled kerb - Height: 170 mm



The PYROPASS® EVOLUTION TREUIL consists of:

- **A galvanised steel kerb**, this is the main component of the unit. The opening part of the unit and the mechanical and oleo-pneumatic opening system are fitted to the kerb. The kerb of the PYROPASS® EVOLUTION TREUIL is equipped with a pulley as standard. The straight side kerb is covered on the outside by bitumen-surfaced thermal insulation designed to accept torch-on waterproofing membranes. In the PYROPASS® EVOLUTION TREUIL Adapter Plate version, the option of an insulated kerb is available on request.
- **A tubular opening frame in galvanised steel**: the opening frame is equipped with a thermal fuse as standard to which the steel cable is attached.
- **Glazing**: as standard version either 10 mm reinforced, structured opalescent polycarbonate sheet (PCA). As option, 10 and 16 mm structured polycarbonate, PCA triple – or quadruple-walled structured polycarbonate for better thermal resistance, or aluminium cover 10, 20 or 60 mm. **Only the grill option guarantees the "1200 joules" test.** To choose the type of glazing required, see the table entitled "Glazing Performance". The positioning of the glazing and the design of our units reduce the build-up of condensation as air circulates between the frame and the kerb.
- **Aluminium beading frame**: as this holds the glazing in place and protects edges from lateral impacts. It also improves the aesthetic appeal of the PYROPASS® EVOLUTION TREUIL.

4 FUNCTION

In case of fire, the thermal fuse and/or the emergency release of the winch causes the **PYROPASS® EVOLUTION TREUIL** to open in accordance with the type of control used. The force necessary to open the unit is supplied by gas filled cylinders, held under pressure in the closed position.

This system allows the unit to open to 155°. If the unit is opened (apart from melting of the fuse) the unit can and must be closed again using a winch at ground level.

The thermal fuse is imposed by the norm NF EN12101-2 on all units, apart of specific restrictions: (contact us).

5 GLAZING PERFORMANCES

TYPE OF GLAZING	THERMAL TRANSMISSION U (W/m ² °C)	LIGHT TRANSMISSION (%)	FIRE CLASSIFICATION*	ACOUSTIC (db (A))
Double dome PMMA (Polymetacrylate methyle)	3.1	76	Tests in progress (M4)	19
10 mm structured polycarbonate - clear	3.1	85	Bs1do	17
10 mm structured polycarbonate - opal	3.1	62	Bs1do	17
10 mm structured polycarbonate - 4-walled opal	2.5	55	Bs1do	17
16 mm structured polycarbonate - opal	2.3	57	Bs1do	21
Aluminium cover 10	3.1	0	Tests in progress (M0)	17
Aluminium cover 20	0.98	0	Tests in progress (M0)	-
Aluminium cover 60	0.6	0	Tests in progress (M0)	24

For other types of glazing: see the datasheet on OPTIONAL FUNCTIONS

* Euroclass Classification

() Former Fire classification

6 VENTILATION PERFORMANCES

OPENING cm x cm	A _v (GEOMETRIC SURFACE) in m ²	A _a (OPENING SURFACE) Straight kerb HT 310 mm in m ²	A _a (OPENING SURFACE) Adapter Plate version HT 170 mm in m ²	
	Evolution	Evolution	Straight Profile	Angle Profile
100 x 100*	1.00	0.68	0.63	0.68
120 x 120*	1.44	0.96	0.91	0.97

* Side fixed mechanism

Value with installed deflectors

7 APPROVAL

Laboratory tests guarantee that the **PYROPASS® EVOLUTION TREUIL** resistance and performance levels are in accordance with the most restricting current legislations, when installed in conformity with the DTU 43-3.

The **PYROPASS® EVOLUTION TREUIL** has the Product Certification CE NF EN 12101-2 N°0333 CPD219 016 with all our glazings (see table), including safety options:

- Position contacts.
- Thermal fuse with bulb as standard.

The conformity certifications of the norm NF EN 12101-2, 1200 joules and fire rating data are available on our website: www.skydome-axt.com on the heading "Espace Partenaires".

LOADS Kg/m ²	WIND LOADING (Depression test)	RELIABILITY TEST	HEAT RESISTANCE
From 25 to 50 kg/m ² Depending on the glazing	WL 1500	Re 300	B 300

In standard, the PYROPASS® ÉVOLUTION TREUIL is of type B and T (00).

OPENING (mm)	PCA		DOUBLE DÔME		ALU COVER	
	SL in kg/m ²	Mechanism	SL in kg/m ²	Mechanism	SL in kg/m ²	Mechanism
100 x 100	50	Side	50	Side	50	Side
120 x 120	50	Side	25	Side	25	Side

In standard, the PYROPASS® ÉVOLUTION TREUIL are SL25.

Reminder IT 246: Article 3.8 Characteristics of smoke evacuation units

“The smoke evacuation units of reliability class **Re 300** (300 cycles of security process).

The bi-function units, used for ventilation, are opened 10 000 times during the ventilation tests.

The classification of the snow load is **SL 250** (25 daN/m²) for altitudes lower or equal to 400 m, ...

SL 500 (50 daN/m²) for altitudes over 400 m. ...

The units are inside temperature class **T00** (0°C) and heat resistance class **B₃₀₀ 30** (300° during 30’).”

The PYROPASS® ÉVOLUTION TREUIL contains the following components **as standard**:

- Grab handle in galvanised steel.
- Ladder attachment bar (BAE) in galvanised steel.
- Pre-painted kerb in CLASSIC WHITE.
- Painted opening grill (tested to 1200 joules).
- Opening mechanism.

Extra Option:

- Technical solution to adapt unit to a roof with PVC waterproofing.

Optional extras for both versions:

- Domes 1200 joules
- Pyramid domes (mini kerb height 410 mm)





The PYROPASS® ÉVOLUTION TREUIL Adapter Plate contains the following components **as standard**:

- Grab handle in galvanised steel.
- Opening mechanism.

Extra Options:

- Steel kerb painted in CLASSIC WHITE.
- Steel kerb painted after manufacture in main RAL colours.
- Opening galvanised grill tested to 1200 joules.
- Painted opening grill tested to 1200 joules.
- Ladder attachment bar (BAE) in galvanised steel.
- Adapter plate insulation.
- Foot lengths from 83mm to 180 mm.

- PCA 10 Black, PCA 16, etc. ...
- Aluminium cover, 10, 20, 60 mm

- Certified  winch kit with mechanical release: ref. XKT 101
- Certified  winch kit with pneumatic release: ref. XKT 102
- Certified  winch kit with electromagnetic release (24/48 volts emitting/breaking): ref. XKT 104
- Certified  winch kit with electro pneumatic release: ref. XKT 103



Installation should be carried out in accordance with current regulations. Decks should be sound, resistant and in accordance with the requirements of current decking standards and the installation guide. Maximum roof slope: 25°, i.e. 45%. The hinged side of the unit must be parallel to the slope.

Fixing: in accordance with the current DTU series 43, in the case of a standard kerb, on metal, timber or concrete deck. If an adapter plate (or covering kerb) is used, this is adapted for installation on to the existing kerb or concrete surround more than 140 mm in height. Dimensions of the internal opening in the adapter plate must be less or equal to those of the existing kerb on to which it will be fixed. This is necessary, in order to maintain the ventilation performance characteristics of the adapter plate.

Waterproofing seal:

- The bitumen-faced insulation on the standard kerb guarantees a seal with waterproofing detailing material.
- Zinc or lead flashing should be installed in situ to create a seal with roof tiles or slates.
- A co-laminated metal sheet is used for PVC membranes.

Maintenance: the installation must be maintained at regular intervals and a preventive maintenance check should be scheduled for at least once a year (refer to current regulations for the type of building).

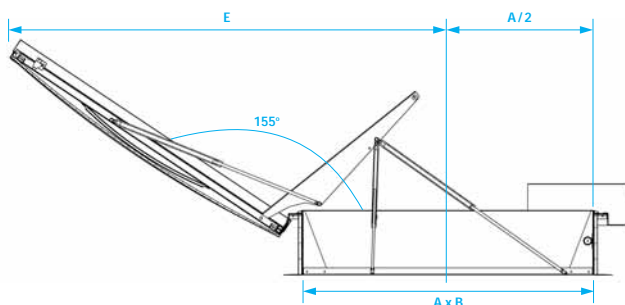
The installation notice of the **PYROPASS® EVOLUTION TREUIL** is available on our website:

www.skydome-axt.com on the heading "Espace Partenaires" (Partner Information).

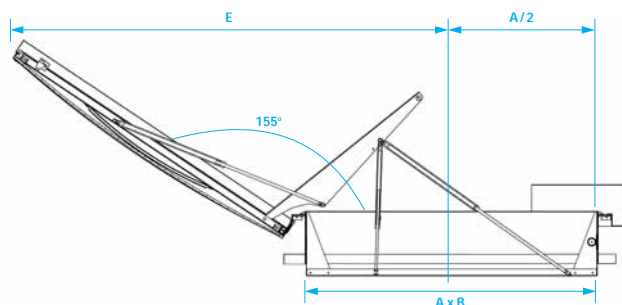
DIMENSION OF OPENING A x B* (cm)	E (cm)	H (cm)		H1 (cm)		Weight with grill (kg)	
		in DD	in PCA	in DD	in PCA	in DD	in PCA
100 x 100	165	55	41	41	27	68	63
120 x 120	195	57	41	43	27	89	82

* B are the longest, hinged sides of the unit.

PYROPASS® EVOLUTION TREUIL



ADAPTER PLATE PYROPASS® EVOLUTION TREUIL



H1: Height of adapter plate