

- Steel kerb painted after manufacture in any of the main RAL colours
- Grills tested to 1200 joules
- Painted grills tested to 1200 joules
- Thermal fuse category 1
- Position contacts
- PCA Black, PCA 16, etc
- Aluminium cover 10, 20, 60
- Technical solution to adapt unit to a roof with PVC waterproofing

#### Optional extras for the PYROCLAIR® IMPR Adapter Plate:

- Insulation
- Foot lengths from 50 to 180mm (and longer on request)

- CO<sub>2</sub> boxes for opening/closing **NF**
- Two-zone CO<sub>2</sub> boxes, 2 openings/1 closing **NB**
- Copper network
- CO<sub>2</sub> boxes + ventilation **NB**
- See Controls Datasheet



Installation should be carried out in accordance with current regulations. Decks should be sound and resistant and should conform to the requirements of current decking standards and of the installation guide. Maximum roof slope: 25°, i.e. 45%. The hinged side of the unit must be parallel to the slope. Waterproofing must be in accordance with BS Code of practice 8217: 2005.

**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. Dimensions (length and width) of the internal opening in the adapter plate must be less than 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.

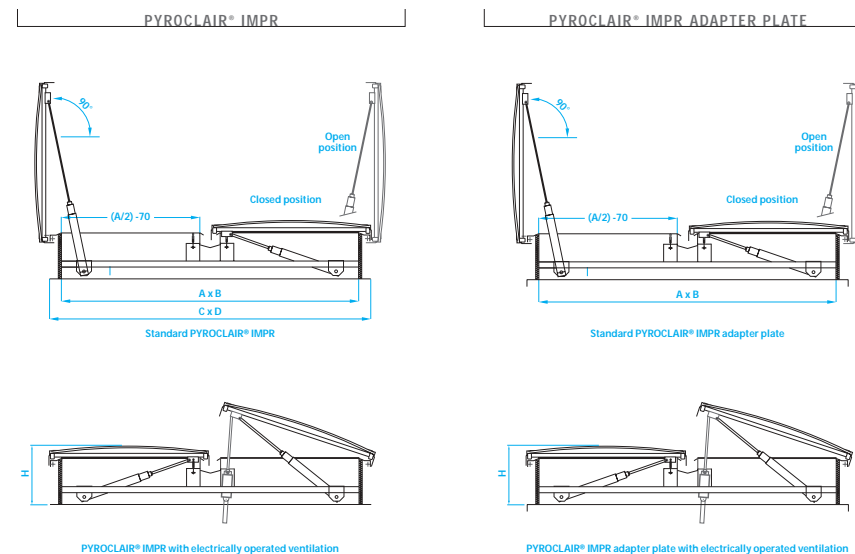
#### Waterproofing seal:

- 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).

DIMENSIONS OF ROOF OPENING A X B* (CM)	LIGHT TRANSMISSION SURFACE (M <sup>2</sup> )	OVERALL DIMENSION C X D* (CM)	PYROCLAIR® IMPR H (CM)
120 x 250	3.00	142 x 288	41
120 x 300	3.60	142 x 338	41
150 x 250	3.75	172 x 288	41
150 x 300	4.50	172 x 338	41
160 x 250	4.00	182 x 288	41
160 x 300	4.80	182 x 338	41
180 x 250	4.50	202 x 288	41
200 x 200	4.00	222 x 238	41
200 x 250	5.00	222 x 288	41
200 x 300	6.00	222 x 338	41

\* B and D are the longest, hinged sides of the unit.



## SMOKE EVACUATION / NATURAL DAYLIGHTING AND VENTILATION

# PYROCLAIR® IMPR



RE: PYROCLAIR® IMPR 2020 - The manufacturer reserves the right without prior notice to modify the composition of its products. Characteristics as to the properties and performance under any variations from such conditions in actual construction. DISCOUR COMMUNICATION.



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PYROCLAIR® IMPR is used on flat and low slope roofs and on tiled or slate pitched roofs for all types of smoke evacuation, e.g.: public access buildings, industrial buildings, commercial buildings, offices, etc. PYROCLAIR® IMPR is best used in large buildings which require smoke evacuation systems comprising several pieces of equipment. The PYROCLAIR® IMPR opening control has to be connected by copper tubing to a pneumatic box (manual control).

**Colour:** the PYROCLAIR® IMPR is supplied in galvanised steel or, on request, is also available painted after manufacture in one of the principal RAL colours (thickness of paint: more than 25 µ).

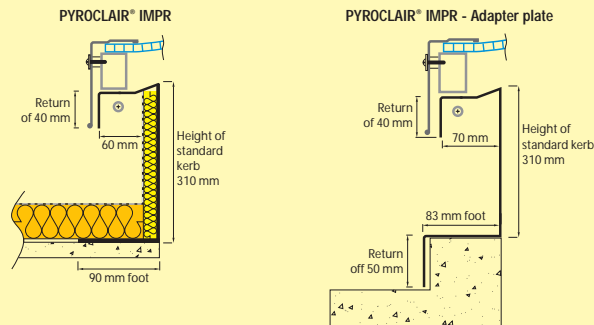
**Ventilation Kit Option:** the PYROCLAIR® IMPR can be equipped, on request, with an electric Ventilation Kit, a simple and effective way of ventilating a building. The kit is installed on one of the panes in the unit. The PYROCLAIR® IMPR is then opened and closed using a 300 mm electric cylinder, connected to the electricity supply at 220 volts. In the case of fire, the system automatically disconnects, giving priority to the fire safety function.

With the Ventilation Kit Option, the PYROCLAIR® IMPR holds a Certification Produit NF (NF Product Certification) for Smoke Evacuation Units. With this extra function, the PYROCLAIR® IMPR can be specified for all types of building.

**New work:** Ideal for new roofs. The standard kerb is 310 mm high with a base plate of 90 mm.

**For refurbishment and renovation works and for use on an existing or new builder's kerb:**

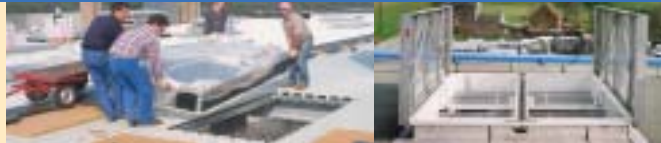
The adapter plate is 310 mm high with a foot of 83 mm (other sizes are available upon request).



## SMOKE EVACUATION / NATURAL DAYLIGHTING AND VENTILATION

# PYROCLAIR®

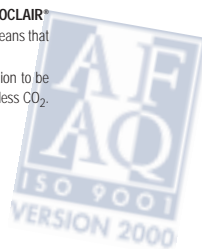
IMPR



### 1 ADVANTAGES

**Integrated, assembled and pre-connected mechanisms:** the opening and closing mechanisms of the PYROCLAIR® IMPR unit are completely contained within the height of the kerb in both the open and closed position. This means that they do not impede the passage of other networks or the use of other equipment under the ceiling. The unit is delivered fully assembled. The cylinders are connected in the factory. There is just one connection to be completed by the installer. The special opening mechanism of the double opening PYROCLAIR® IMPR uses less CO<sub>2</sub>.

**High resistance to corrosion:** the galvanised steel kerb is either welded or crimped. All welds on the PYROCLAIR® IMPR are reconditioned, thereby avoiding the appearance of any corrosion.



### 2 COMPOSITION

The PYROCLAIR® IMPR unit comprises the following elements:

- **A steel kerb,** this is the main component of the unit. The two opening panes are fitted to the kerb, together with a crosspiece which supports the two pneumatic opening systems.
- **A central channel** 100 mm deep ensures that the joint between the two opening panes remains watertight and that rainwater runs off. The straight sided kerb is covered on the outside by bitumen-surfaced thermal insulation designed to accept torch-on waterproofing membranes. Alternative designs are available for PVC roof membranes. In the PYROCLAIR® Adapter plate version the option of a two-layered insulation on the kerb is available on request. Fire rating: MO.
- **Two opening panels:** these are tubular in galvanised steel and are activated by a cylinder. The two frames are kept in the closed position by a high performance mechanical lock mechanism.
- **Glazing:** as standard 10mm reinforced, structured opalescent polycarbonate sheet (PCA) (tested to 1200 joules). The following options are also available: 10 and 16mm polycarbonate, triple- or quadruple-walled structured polycarbonate sheet for better thermal resistance, anti-UV treated PCA or an aluminium cover. To choose the type of glazing required, see the table entitled "Glazing - Performance". The positioning of the glazing and the design of our units reduces the build-up of condensation as air circulates between the frame and the kerb.
- **Two aluminium beading frames:** fixed by stainless steel screws and nylon washers, these hold the glazing in place and protect edges from lateral impact. They also improve the aesthetic appeal of PYROCLAIR® IMPR.

### 3 FUNCTION

The PYROCLAIR® IMPR is connected in just one place to a pneumatic circuit linked to a CO<sub>2</sub> cartridge control. Pressure on the circuit from ground level activates the pneumatic cylinders, allowing the release of the cylinder heads and the opening of the two panes to 90°.

In the case of fire, for automatic opening when the temperature rises, there is the option of a thermal fuse installed in the factory and connected to the circuit further up from the two cylinders, with a cartridge and bulb 68° as standard on the PYROCLAIR® IMPR. The PYROCLAIR® IMPR is closed again using a CO<sub>2</sub> cartridge control.

### 4 GLAZING - PERFORMANCE

TYPE OF GLAZING	THERMAL TRANSMISSION U W/M2 °C	LIGHT TRANSMISSION (%)	FIRE CLASSIFICATION (BUILDING REGULATIONS ENGLAND AND WALES 2002)TP(A)	ACOUSTIC PERFORMANCE (DB(A))
10mm structured polycarbonate - clear	3.1	85	Tp(a)	17
10mm structured polycarbonate - opal	3.1	62	Tp(a)	17
10mm structured polycarbonate - 4-walled	2.5	55	Tp(a)	17
16mm structured polycarbonate - opal	2.3	57	Tp(a)	21
16mm structured polycarbonate special k	2	72	Tp(a)	21
Aluminium cover 10	3.1	0	-	17
Aluminium cover 20	0.98	0	-	--
Aluminium cover 60	0.6	0	-	24

For other types of glazing: see the datasheet on Optional Functions

### 5 VENTILATION PERFORMANCE

INTERNAL OPENING DIMENSIONS (A CM X B CM)	GEOMETRIC OPENING SURFACE (G.O.S.) (M2)	FREE AIR SURFACE WITH GRILL AND ACCESSORIES	FREE AIR SURFACE WITH SQUARE BAR FITTING (M2)
120 x 250	3.00	1.980	1.920
120 x 300	3.60	2.376	2.304
150 x 250	3.75	2.737	2.662
150 x 300	4.50	3.285	3.195
160 x 250	4.00	2.920	2.840
160 x 300	4.80	3.504	3.408
180 x 250	4.50	3.285	3.195
200 x 250	4.00	2.600	2.520
200 x 200	5.00	3.650	3.550
200 x 300	6.00	4.380	4.260

### 6 APPROVAL

Laboratory tests guarantee that the PYROCLAIR® IMPR resistance and performance levels conform to the most stringent current regulatory standards, NFS 61.937, NFP 37.418, when installed in accordance with current regulations. PYROCLAIR® IMPR is NF certified for smoke evacuation No. 02/03.07 with all glazing options (see Table above) including the following safety options:

- Position contacts
- Thermal fuse and bulb 68° as standard

NF smoke evacuation certification confirms that the PYROPASS conforms to NFS 61.937, in fire performance, mechanical tests, ventilation coefficients and quality controls governing manufacture.

Other characteristics:

Resistance to upward static load: 1000 pa (1000 N/m<sup>2</sup>)

Resistance to downward static load: 1500pa (1500 N/m<sup>2</sup>)

Details of the NF conformity certification and fire rating data can be found on our website: [www.skydome-axt.com](http://www.skydome-axt.com) under the heading "Espace Partenaires" (Partner information)