POWRMATIC®

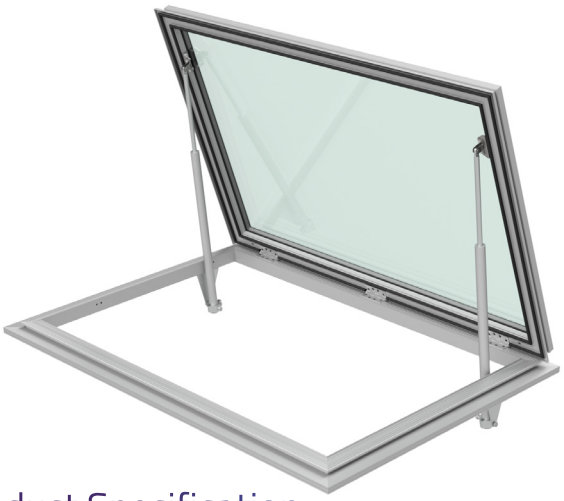
CE PRODUCT SPECIFICATION SHEET

Stirling

Casement Ventilator

Smoke & Natural Ventilator

Tested to BS-EN 12101: Part 2: 2003



Overview

The Stirling smoke and heat exhaust ventilator (SHEV) is constructed from extruded AW 6063-T6 aluminium alloys manufactured to EN775 specification. Incorporated within the extrusion profiles is provision for dual weather sealing, control mechanism attachment, hinge location and standard glazing bead and gasket for various size glass and insulating panels.

Design

In developing the Stirling we have created a product which in itself is a system. All Stirling units can be fitted both horizontally and vertically and are available in standard form for pocket glazing into all24, 28 and 32mm curtain wall and roof glazing systems.

The product can blend into building structures whilst maintaining the highest specification standards. This affords the designer creativity in the use of high performing, thermally efficient products. It has been specifically designed to meet both the functional and aesthetic demands of the modern construction industry and provides the perfect blend of performance, versatility and aesthetics.

Panel Options

Panel Options	Tested to
Double Glazed Panel	EN-12101
25mm insulated aluminium panel	EN-12101
25mm multi wall ploycarbonate	EN-12101

Performance

The following performance attributes follows tests to EN 12101-2:2003 (the standard for smoke and heat exhuast ventilators). The exact performance attributes will depend on the chosen size, controls and flap type.

Test	Class	Test	Class
Reliability	RE-1000	**Resistant To**	B300
Wind Load	EN-12101	**Resistant To Fire**	EN-13501-1
Snow Load	EN-12101	**Low Temp Class**	T (-5°c)
U-Value	1.2 W/(m^2K (Coated & argon filled 8.8m / 14mm / 6.6mm)		
Air Permeability	0.312m^3/hr/m^2 at 50 Pa (to EN 12207:1999)		
Water Tightness	Class 9 A - No leaks at static pressure of up to and including 600Pa (to EN 12208:1999)		

Product Specification

Construction
Extruded Aluminium

Sizes & Weights
Smoke Ventilation - Available in increments from 500 mm to 2000 mm high and 500 mm to 1350 mm wide depending on orientation and application.

Natural Ventilation - Larger sizes are available for natural ventilation depending on orientation and application. contact Powrmatic for more information

Controls
The Stirling is supplied with electric 24v electric drive open/ drive close Acutator (chain or spindle tested to BS-EN12101.

Finish Options
- Naturally anodised
- Polyester powder coated to a standard BS or RAL colour.

Glass & Panel Types
The Stirling can be fitted with either of the following:
(Glass thickness can range from 9 to 48mm)

- Single Glazed
- Double Glazed
- Triple Glazed
- Insulated Or Un-Insulated Aluminium
- Polycarbonate

Installation
The Powrmatic Stirling vent can be installed vertically or horizontally into either of the following applications:

- Glazing Systems & Facades
- Curtain Wall Frames
- Block Work Openings

Optional Accessories
- Birdguards - 12mm square galvanised wire mesh.
- Security Bars/Guards - 16mm Ø solid steel bar.
- Insect Mesh - woven aluminium

Stirling CR140 Casement Ventilator

TESTED TO BS-EN 12101:Part 2 2003

Overview

The Stirling CR140 smoke and heat exhaust ventilator (SHEV) is constructed from extruded AW 6063-T6 aluminium alloys manufactured to EN775 specification.Incorporated within the extrusion profiles is provision for dual weather sealing, control mechanism attachment, hinge location and standard glazing bead and gasket for various size polycarbonate and insulating panels.

Control Options

CR 140. Control option single and dual (twin) control

CR 140 control option uses a slim all round 24 volt DC spindle actuator suspended by span brackets across the throat of the ventilator. The actuator protrudes out from beneath the ventilator base frame and opens the casement to 140 degrees. The control option is suitable in applications when single flap ventilators are horizontal. Specifically design to prevent "wind scoop" cause by the open casement of the ventilator deflecting wind down into and through the ventilator.
Stirling smoke ventilators

- High powered spindle stroke actuator load tested to proven strength and stability.
- Successfully tested as an operating mechanism on EN12101 compliant Natural Smoke & Heat Exhaust Ventilators.
- Low current high efficiency motor with proven speed and reliability.
- Corrosion resistant silver anodised body with stainless steel shaft.
- Fire resistant silicone based trailing lead offering high flexibility and circuit integrity pre wired to terminal box.

Finish Options

The Stirling ventilator is available in either mill finish aluminium or polyester powder coated in a wide range of BS and RAL colours.

Optional Accessories

Burglar bars and anti fall mesh frames are available for mounting below the ventilator to provide additional security and safety.

Infill Panel Options

Enhanced thermal properties are achieved with a choice of a number of casement infill options including translucent and clear multi walled polycarbonate and aluminium clad insulated panels, all with low thermal transmittance characteristics enabling U values no worse than 2.2 W/m2K.

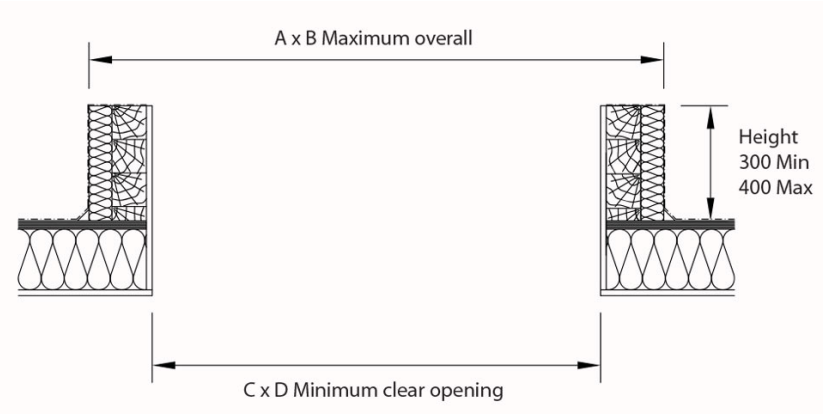
Installation

The CR140 ASF Stirling Ventilator with its extruded Aluminium turndown base fits directly onto a builders work pre-prepared upstand. The ventilator is screwed or bolted onto the curb with a sealant seal between.

If the unit has a multi walled polycarbonate sheet infill it is necessary for the curb to incorporate a minimum 5° slope to enhance drainage from the ventilator.

Carefully consider the exact positioning of the unit to ensure that the ventilator casement will open fully to its fire open position and will not clash with surrounding structures.

It is now generally accepted that cross wind has significant affect on Natural smoke ventilation. By providing a vertical builders work curb to mount the ventilator the adverse effect due to wind is reduced or eliminated. Tests carried out indicate beneficial results increasing with curb height with a uniformly beneficial performance being achieved with a full scale curb
height of 400 mm.



CR140 Curb Dimensions

Model Size	A x B	C x D
1240 x 1240	1240 x 1240	1036 x 1036
1240 x 1740	1240 x 1740	1036 x 1836

Electrical Connection Details 24 volt DC Supply

Model Size	Amp
1240 x 1240	2.5
1240 x 1740	2.5