



*"Innovative building solutions
for a sustainable environment"*



Sand Trap / Weather Eliminator Louvre System

Designers and Specifier's Technical Manual

Zefyr Group

Home Farm, Stockton Road, Abberley,

Worcestershire, United Kingdom,

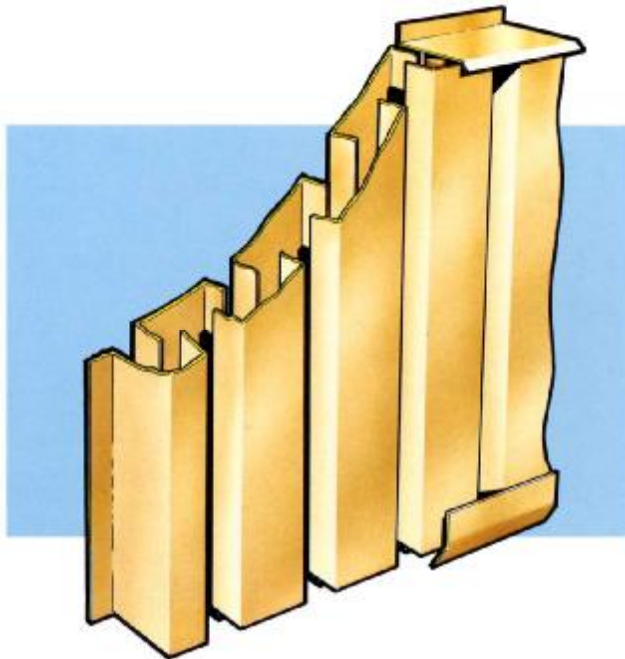
WR6 6AS

Tel (+44) 0870 6001356 Fax (+44) 0870 6001357

mail@zefyrgroup.com www.zefyrgroup.com

Sand Trap / Weather Eliminator Louvre System

General



Zefyr sand trap louvres have been specifically designed to allow air flow into buildings and at the same time repel the entry of dust and sand where these elements are natural hazards. Manufactured from Versacor material, the units are designed and tested to withstand the most arduous conditions over many years. Installed vertically in buildings these units provide a unique feature visually but perform an important element in ventilation design.

Application

Vertical channel louvres are site assembled units manufactured from Zefyr protected metal and are designed for fitting into openings in masonry or mounting into vertical cladding. They are designed for two main applications:

- For separation of sand from inlet air, for both natural and mechanical air inlet systems.
- For severe exposed sites where high resistance to weather penetration is required for air inlet.

Installation

Fixing is quick and easy due to the low number of components and non-requirement for special tools. Site installation is simple. The inner louvre blades are screwed to the horizontal rails, the blade spacers riveted in position, and the outer blades and flashings fixed.

Performance

Blade design has been fully tested to produce optimum spanning, pressure loss and separation characteristics and are certified by independent test certificates. Typical efficiency based on simulated desert sand dust (1 to 89 micron) is 85%.

Blades

Versacor protected metal 0.7 mm thick, maximum inner blade length 3.0 m. Other material specifications are available. Embossed coloured finish in standard Versacor range.

Frame and Flashings

Versacor protected metal 0.7 mm thick. Other material specifications are available.

Bird Guards

Available as an optional extra in galvanised, PVC coated galvanised steel or aluminium, or to suit customer's requirements.

Insect Screens

Available as an optional extra in expanded aluminium small mesh type M901 A (to B.S. 1470: 1987) or stainless steel wire mesh.

Note: Bird guard / insect mesh will reduce the louvre free area.

Standard Heights

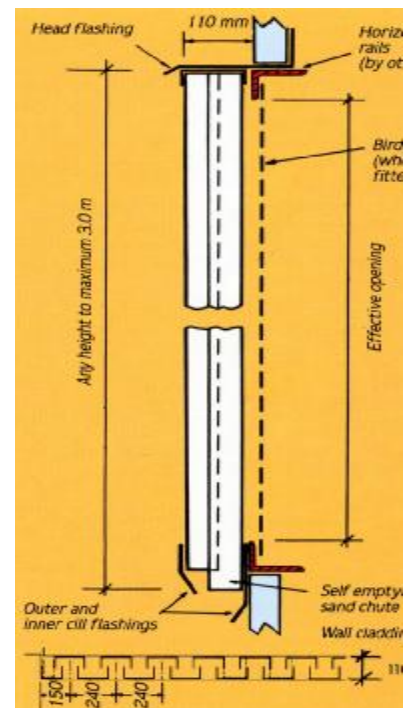
Any height up to a maximum of 3.0 m.

Standard Width

Width = 240 mm x No. of outer louvre blades + 2 x 150 mm.

Opening Sizes

Add 20 mm to louvre width dimension.



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Flashings

Head, cill and jamb flashings can be supplied, when required, to suit individual requirements and match external cladding or louvre material.

Weight

25 Kg/m².

Fasteners

Inner blades fixed to horizontal rails by 25 x No. 14 stainless steel self-tapping screws. Flashings, spacers and outer blades fixed by aluminium rivets.

Rail Spacings

The maximum rail spacings are governed by the wind loadings on the louvre section. Table 2 indicates rail spacings for some typical wind loading values.

Maintenance

Wash down with soapy water, frequently.

Height 'H' mm	Width mm 'A'					
	1260	1500	1740	1980	2220	2460
	Measured Free Areas – M²					
1000	0.41	0.49	0.56	0.64	0.72	0.80
1250	0.51	0.61	0.71	0.80	0.90	1.00
1500	0.61	0.73	0.85	0.96	1.08	1.20
1750	0.72	0.85	0.99	1.13	1.26	1.40
2000	0.82	0.97	1.13	1.29	1.44	1.60
2250	0.92	1.02	1.27	1.45	1.62	1.80
2500	1.02	1.22	1.41	1.61	1.80	2.00
2750	1.13	1.34	1.55	1.77	1.98	2.20
3000	1.23	1.46	1.69	1.93	2.16	2.40

Wind Loading		1 KN/m ²	1.5 KN/m ²	2 KN/m ²
Rail Spacing	Blades 0.7mm	2.83m	2.31m	2.00m

Pressure Drop

STL - Pressure Drop Curve

