



Industrial Eliminator Weather Louvre

Zefyr I-E-WL

System
Industrial

Format
Modular

Blade
Aerodynamic Profile

Application
Acoustic Media,
Standtrap and Weather
Eliminator

Tested
High performance
fully tested louvre
system; Structurally,
Weatherability and
Aerodynamically

Pest Control
None, Bird Guard and
Insect Mesh

Finishes
Mill Finished, PPC,
Anodised, Pre-coated
steel or PVF2

Introduction

Zefyr “Eliminator Louvres” have been specifically designed to allow air flow into buildings and at the same time repel the entry of dust, sand and rain where these elements are natural hazards. Manufactured from most metals, 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:

1. For separation of sand and water from inlet air, for both natural and mechanical air inlet systems.
2. 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.

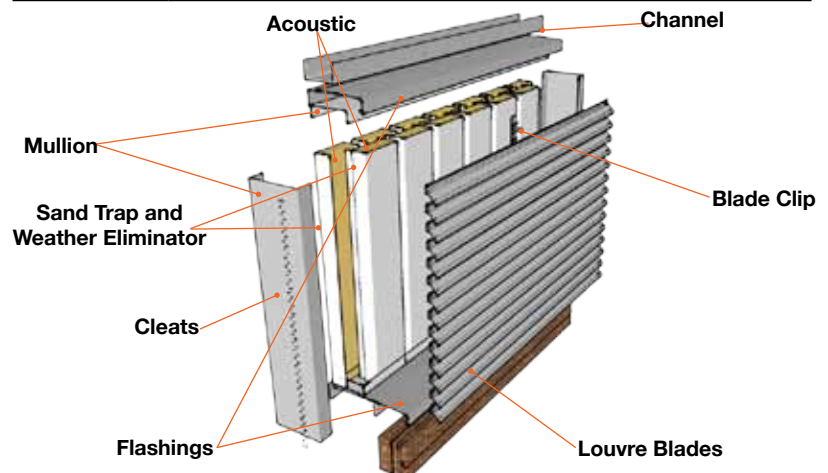
Key Parts

| | |
|------------------------------|---|
| Blades | Protected metal, maximum inner blade length 3m. Other material specifications are available. Embossed coloured finish in standard range. |
| Frame & Flashings | Protected metal. Other material specifications are available. |
| Flashings | Head, cill and jamb flashings can be supplied, when required, to suit individual requirements and match external cladding or louvre material. |
| Fasteners | A comprehensive range of specialist structural fixings are available to suit requirements of each individual application / installation. |

Optional Extras

| | |
|-----------------------|--|
| 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.



Technical Data

Dimensions

Standard

Heights

| |
|--------|
| 1000mm |
| 1250mm |
| 1500mm |
| 1750mm |
| 2000mm |
| 2250mm |
| 2500mm |
| 2750mm |
| 3000mm |

Widths

| |
|--------|
| 1260mm |
| 1500mm |
| 1740mm |
| 1980mm |
| 2220mm |
| 2460mm |

Custom

Height

Any height up to a maximum of 3000mm

Width

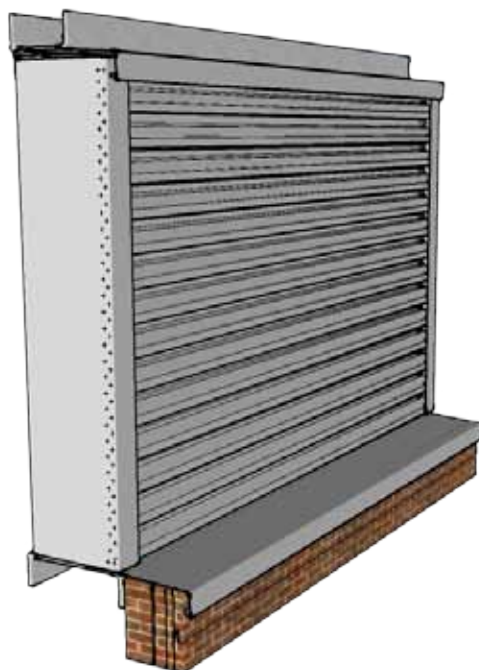
240mm x No. of outer louvre blades + 2 x 150mm

Opening Sizes

Add 20mm to louvre width dimension

Weight

25 kg/m²



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%, for the base system rising to 99% + when fitted with interstitial filter media.

Rail Spacings

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

| Wind Loading | |
|-----------------------|--------------|
| Rail Spacing | Blades 0.7mm |
| 1.0 KN/m ² | 2.83m |
| 1.5 KN/m ² | 2.31m |
| 2.0 KN/m ² | 2.00m |

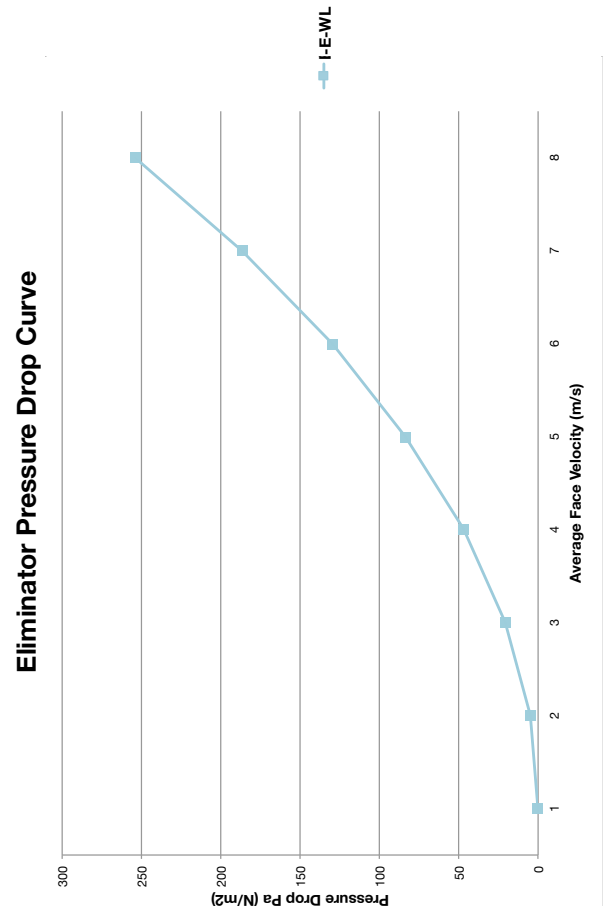
Air Flow

| Measured Free Areas (M ²) | | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|--------|
| | 1260mm | 1500mm | 1740mm | 1980mm | 2220mm | 2460mm |
| 1000mm | 0.41 | 0.49 | 0.56 | 0.64 | 0.72 | 0.80 |
| 1250mm | 0.51 | 0.61 | 0.71 | 0.80 | 0.90 | 1.00 |
| 1500mm | 0.61 | 0.73 | 0.85 | 0.96 | 1.08 | 1.20 |
| 1750mm | 0.72 | 0.85 | 0.99 | 1.13 | 1.26 | 1.40 |
| 2000mm | 0.82 | 0.97 | 1.13 | 1.29 | 1.44 | 1.60 |
| 2250mm | 0.92 | 1.02 | 1.27 | 1.45 | 1.62 | 1.80 |
| 2500mm | 1.02 | 1.22 | 1.41 | 1.61 | 1.80 | 2.00 |
| 2750mm | 1.13 | 1.34 | 1.55 | 1.77 | 1.98 | 2.20 |
| 3000mm | 1.23 | 1.46 | 1.69 | 1.93 | 2.16 | 2.40 |



Pressure Drop

| Pressure Drop (N/m ²) | |
|-----------------------------------|-------------------|
| Average Face Velocity | Eliminator Louvre |
| 0.0m/s | 0 |
| 0.5m/s | 5.19 |
| 1.0m/s | 20.76 |
| 1.5m/s | 46.71 |
| 2.0m/s | 83.04 |
| 2.5m/s | 129.75 |
| 3.0m/s | 186.85 |
| 3.5m/s | 254.33 |



NBS Specifications

Zefyr Industrial Eliminator Louvre System

**Optional to complete / delete as appropriate*

| | |
|----------------------|--|
| Manufacturer | Zefyr, Home Farm, Stockton Road, Abberley, Worcestershire, WR6 6AS T +44 (0) 870 600 1356 F +44 (0) 870 600 1356 E mail@zefyrgroup.com |
| Installation | Installation to be carried out by a certified ZEFCON approved installer |
| Configuration | Supplied to site in modular form for rapid site assembly and installation |
| System | Industrial Sand Trap / Weather Eliminator Louvre |
| Format | Modular |
| Blades | Vertical aerodynamic CNC precision formed and profiled interlocking channels - with integrated weathered air flow grid. Manufactured from aluminium or galvanised steel or stainless steel |
| Casing | CNC precision formed and profiled interlocking channels -with weathered cill. Manufactured from aluminium or galvanised steel or stainless steel |
| Flashings | CNC precision engineered / formed |
| Infil | * None / Insect Mesh / Bird Guard / Blanking Panel / Insulated Blanking Panel / Acoustic Media |
| Filter Media | * UV Stabilised, washable filter media |
| Corners | * Optional – Internal / External |
| Finish | * Mill Finished, * Polyester powder coated to Zefyr standard colour / finish - chart available on request, * Anodised (aluminium only) - Natural Silver / Analok / Zefyr Colours, * Pre-coated steel - Zefyr standard colour/finish - chart available on request, PVF2 |