VENTÜER
Engineered Ventilation Products & Systems

Product Technical Statement

Ventüer VL-100S Twin Weatherstop Ventilation Louvre

Product Description

The Ventüer VL-100S aluminium louvre system is a single bank double weather stop ventilation louvre. It has good rain defence and medium pressure drop, making it an excellent choice where the same louvre type need to be used in both exhaust and intake situations. It comes with a flanged perimeter frame, and can be fitted with bird mesh, insect mesh or dust filters. Available in a wide range of standard powdercoat colours, the VL-100S is manufactured to order and can be fabricated in a wide range of sizes. Independently tested and certified to BS/EN:13030.

Scope of use

Designed for use as an air intake or exhaust louvre in situations where exposure to moderate levels of wind and rain are expected, and where some water carry over is acceptable. Good airflow characteristics, resulting in high ventilation rates. Ideal for natural ventilation of carpark buildings, plant rooms and basements where some water ingress will not damage interior linings or equipment. Constructed from extruded aluminium and suitable for salt-spray zones and other corrosive environments when powdercoated appropriately. Compatible with all common structure and cladding types, including precast concrete, metal cladding, fibre cement sheet and unitised curtainwall systems. Ancillaries such as bird mesh, insect mesh, dust filters, mechanical dampers and plenums can be supplied fitted to the rear face.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- Clause B1 Structure: Performance B1.3.3(a), B1.3.3(f), B1.3.3(h)
- Clause E2 External moisture: Performance E2.3.2
- Clause G4 Ventilation: Performance G4.3.1

Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

- When sized correctly, the VL-100S louvre system complies with the requirements for natural ventilation of buildings under the New Zealand Building Code clause G4
- When installed in accordance with Ventüer technical literature, shop drawings and site-specific engineering the VL-100S louvre system complies with the requirements for structure under the New Zealand Building Code clause B1
- When installed in accordance with Ventüer technical literature and shop drawings the VL-100S louvre system complies with the requirements around external moisture as outline in New Zealand Building Code clause E2

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements: Contact Ventüer for further details.

Use in Service History

The VL-100S louvre system was developed in New Zealand in 2008. Since that time it has been used extensively on a wide range of projects including multi-story carparks, industrial buildings, aged care homes and storage facilities throughout New Zealand.

Refer to the Ventüer website for detailed case studies - https://ventuer.co.nz/case-studies-ventilation/

Company Contact Details

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Product Criteria

Design Requirements

- Good airflow characteristics, resulting in high ventilation rates
- Compatible with all common structure and cladding types, including precast concrete, metal cladding, fibre cement sheet and unitised curtainwall systems
- Extruded aluminium construction, available in any standard powdercoat colour or anodising
- Can be fitted with ancillaries such as bird mesh, insect mesh, dust filters, mechanical dampers and plenums
- Cost effective
- Independently tested and certified to BS/EN:13030
- Water ingress from wind driven rain can be substantial if exposed to high winds or situated where cross flow can occur (i.e. having louvres on both sides of an empty building such as a storage facility) - If interior linings or equipment within the building can be damaged by exposure to water, consider using the double bank VL-2SD louvre system instead
- As this louvre is not self-draining, panels greater than 1500mm high will have reduced weather resistance due to water shedding from the upper blades and flooding the lower portion of the panel

Installation requirements

Installation requirements for the VL-100S louvre system vary dependent on the site wind loads, louvre panel sizes, cladding type and primary structure detailing. Ventüer provides full shop drawings for all installations which show sequencing, fixing type and sizing, flashing requirements and sealant details. Installers should make themselves fully conversant with these shop drawings prior to installation commencing.

Maintenance requirements

Refer to Ventüer Operation & Maintenance Manual

Warrantees

Refer to Ventüer Warranty Document

Company Product Information

Environmental

All Ventüer ventilation louvre systems are fabricated from aluminium which is extruded locally here in New Zealand. The majority of this aluminium is "green aluminium", meaning that the electricity for smelting is supplied from renewable energy sources (such as is the case with Tiwai Point, which relies on hydro-power). Any waste generated during manufacture is fully recycled, as can be any louvres at the end of their useful life. All powdercoating of louvre components is carried out by certified applicators and the use of chromate treatment processes is strictly avoided. Effective use of passive ventilation devices such as louvre systems can significantly reduce the energy consumption of a building, reducing both its carbon footprint and whole of life cost.

Test Certification

BSRIA Report 59678/2