Ventüer VL-104D Single Bank Drainable Ventilation Louvre

Product Technical Statement: 109570

miproducts

Self-draining single-bank ventilation louvre that provides good protection from wind driven rain.
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Level of assurance needed to demonstrate NZ Building Code Compliance
LOW
Supporting documentation should include self-assessment and technical information by manufacturer

Ventüer confirms that this minimum level of assurance has been met or exceeded by the following:
Ventuer Limited
Project Specific PS1

masterspec partner

Technical Statement

Product Description

The Ventüer VL-104D single-bank ventilation louvre system is a drainable louvre that provides a medium level of weather protection, whilst simultaneously having a low pressure drop. Rated as Class C under BS/EN:13030 for air volumes up to 1.0 m3/second, it is ideal for sheltered locations or where a low level of water ingress is acceptable (such as drained plant room areas).

The VL-104D comes with a flanged perimeter frame, which can be fixed in to a wide range of primary support structures and cladding types, including profiled metal cladding, fibre cement sheet, window joinery systems and others.

It can be fitted with a sealed solid backing panel to provide a water-tight rainscreen in areas where the louvres are "inactive", or not required for air flow. It can also be fitted with bird or insect mesh, and can be coupled with the Ventüer range of air control and fire dampers.

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. 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-104D 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-104D 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-104D 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:

Ventuer Limited
Project Specific PS1

Use in Service History

Company Contact Details

Company:	Ventuer Limited
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The VL-104D louvre system was developed in New Zealand in 2011. Since that time it has been used extensively on a wide range of projects including apartments, industrial buildings, commercial office towers and storage facilities throughout New Zealand.

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

Product Criteria

Design requirements

- Good airflow characteristics, resulting in high ventilation rates

- Self-draining blade profile, suitable for tall louvre panels

- 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

- Independently tested and certified to BS/EN:13031

- 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 emtpy building such as a storage facilty). 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.

Installation requirements

Installation requirements for the VL-104D 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 chomate 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.

Relationships

BSRIA Report 55646/3

Date last validated: **08 October 2021**

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