



Product Technical Statement

Ventüer VL-3SD Triple Bank Drainable Ventilation Louvre



Product Description

The Ventüer VL-3SD louvre system is a high performing three-stage weather louvre that provides ultimate protection from wind driven rain. The extruded aluminium louvre blades are supported on a two-piece pressure equalised mullion system, and bordered by a 150mm frame that ejects captured water to the front of the panel. It can be combined with the VL-50CM louvre system to provide cost savings in inactive (blanked off) areas, and can also be fitted with bird mesh, insect mesh or dust filters. Available in a wide range of standard powdercoat colours, the VL-3SD 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 high levels of wind and rain are expected, and where water carry over is required to be minimal. Also suitable for use as a natural ventilation device providing passive air flow to internal spaces. Self-draining via rear blade profiles and concealed mullions, suitable for tall louvre panels. No size limitations - Panels can be modulsed and assembled on site to any dimension, with the clip-fixed front blade profile providing a continuous appearance. 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-3SD 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-3SD 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-3SD 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-3SD louvre system was developed in New Zealand in 2013. Since that time it has been used extensively on a wide range of projects including hospitals, apartments, commercial office towers and sports centres 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

- Very high resistance to wind driven rain, suitable for high wind zones and exposed locations
- Self-draining via rear blade profiles and concealed mullions, suitable for tall louvre panels
- No size limitations. Panels can be modularised and assembled on site to any dimension, with the clip-fixed front blade profile providing a continuous appearance
- 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:13030
- Due to its relatively high pressure loss, the VL-3SD should be used with care when mechanical plant is operating near the limit of its design capacity - If a lower pressure loss is required, the double bank VL-2SD louvre system should be considered instead

Installation requirements

Installation requirements for the VL-3SD 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 59678/4

