



## Product Technical Statement

### Ventüer AL-450W Acoustic Louvre



#### Product Description

The Ventüer AL-450 louvre system is a 450mm deep, high performing acoustic louvre ideal for installations where high levels of noise reduction are required. Constructed with an extruded aluminium front blade profile, it offers a higher level of weather resistance than conventional acoustic louvres made from sheetmetal. The rear of the louvre can be fitted with bird mesh, insect mesh or dust filters. Available in a wide range of standard powdercoat colours, the AL-450W is manufactured to order and can be fabricated in a wide range of sizes. Independently tested and certified to ISO 10140-2.

#### Scope of use

Designed for use as an acoustic louvre in situations such as plant enclosures and industrial environments where a high level of attenuation is required. Fitted with an extruded aluminium front blade profile providing a higher level of weather resistance than traditional flat blade acoustic louvre profiles. The AL-450W is 450mm deep, providing high level of noise reduction. Constructed from 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 AL-450W 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 AL-450W 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 AL-450W 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 AL-series of acoustic louvres were developed in New Zealand in 2019. Since that time they have been used on multiple projects throughout New Zealand, including apartments, hotels, industrial buildings and residential dwellings.

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

- 450mm deep, providing high level of noise reduction
- Compatible with all common structure and cladding types, including precast concrete, metal cladding, fibre cement sheet and unitised curtainwall systems
- 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 ISO 10140-2
- Should be used with caution in situations where water ingress is of concern as high wind speeds and heavy rainfall can result in water being blown between the blades
- 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 a multi-stage ventilation louvre such as the Ventüer VL-3SD or VL-2SD louvre system instead – Note – these alternative louvres do not have acoustic properties

##### Installation requirements

Installation requirements for the AL-450W 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

 Uniservices Report T1922-3

