**Acoustic Ventilation Louvres**

**GENERAL**

1. This section deals with the fabrication and installation of Ventüer acoustic ventilation louvres.

**DOCUMENTS**

1. DOCUMENTS

Documents referred to in this section are:

NZS/AS 1866 Aluminium and aluminium alloys – extruded rod, bar, solid and hollow shapes.

NZS/AS 1734 Aluminium and aluminium alloys – flat sheets, coiled sheet and plate.

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1. MANUFACTURER / SUPPLIER DOCUMENTS

Manufacturers and suppliers documents relating to this part of work:

Ventüer Limited

Manufacturer / supplier contact details

Company: Ventüer Limited

Website: [www.ventuer.co.nz](http://www.ventuer.co.nz)

Email: sales@ventuer.co.nz

Telephone: +64 9 973 3616

**WARRANTIES**

1. WARRANTY – MANUFACTURER / SUPPLIER

Provide standard Ventüer warranty of five years cover from date of manufacture.

**REQUIREMENTS**

1. QUALIFICATIONS

Work to be carried out by tradesmen approved by Ventüer, experienced, competent and familiar with the materials and techniques specified.

1. SUBSTITUTIONS

Substitutions will not be permitted.

1. SHOP DRAWINGS

Provide shop drawings if required.

1. SAMPLES

Submit samples of proposed louvre type and finish upon request.

 **PRODUCTS**

1. LOUVRE BLADES & FRAME

Louvre blades and perimeter frame shall be fabricated from mill finish aluminium / powder coated aluminium / anodised aluminium as specified by the architect.

1. SUPPORTS

Louvre supports shall be as specified on drawings and to Ventüer requirements. See selections.

1. FIXINGS

Screws, bolts and rivets shall be grade 316 or 304 stainless steel, the type and size being appropriate for its location and purpose as determined by Ventüer.

1. FINISH

Finish on louvre components shall be powdercoat or anodise as specified by the Architect. See selections.

1. ACOUSTIC PERFORMANCE REQUIREMENTS

Louvres shall be tested in accordance with ISO 10140-2 *“Laboratory measurements of airborne sound insulation of building elements”* and test certificate made available upon request. Louvres shall have a STC rating according to ASTM E413-87 of 18 dB.

1. RAIN DEFENCE PERFORMANCE REQUIREMENTS

Louvres shall incorporate the proprietary Ventüer extruded aluminium twin weather stop rain defence profile to the leading edges of the blades.

1. DESIGN AND MANUFACTURE

Ventüer shall assess the site, the particular location of the louvres and the wind exposure on all faces at all levels. Advise the Architect at the time of tender of any detailing or product specification for which Ventüer is not able to offer a complete guarantee, or which may affect the satisfactory performance of the louvres.

1. PACKAGING

Packaging shall be recyclable.

**EXECUTION**

**CONDITIONS**

1. DELIVERY, STORAGE AND HANDLING

Take delivery of materials and goods and store on site and protect from damage. Avoid distortion of elements during transit, storage and handling. Prevent surfaces from rubbing together, and any contact with mud, plaster or cement. Keep protective coverings dry. Move / handle product in strict accordance with Ventüer requirements.

1. PREPARATION

Ensure location and substructure is ready to receive the elements and will allow work of the standard required by Ventüer.

1. INSTALLATION

Locate fixings accurately and fit in accordance with Ventüer requirements. Fix plumb, level and true to line. Clean away all swarf during installation. Ensure any holes in steelwork have rust protection. Ensure that any cladding penetrations are weather tight.

1. SEPARATION

Isolate dissimilar materials (metal and non-metal) in close proximity by painting the surfaces or fitting separator strips. Place isolators between aluminium and treated timber and cement based materials. Check there is no water run-off onto aluminium from a dissimilar metal such as copper.

1. FLASHINGS

Select and use sheet metals suited to the element, process or finish specified, jointing them as necessary to allow full development of their expected durability with a minimising of corrosion

1. LOADING

Ensure all elements are fully supported unless designed to be self-supporting. Fix to cavity construction only through supported faces of cladding. Ensure fixings penetrate structure sufficiently to support loading.

**ASSEMBLY**

1. PROTECTION

During fabrication protect all surfaces which will be visible in completed work.

1. COLD FORMED

Ensure cold formed work is free from warping, buckling and fractures. Form bends with a brake press or by cold rolling.

1. CORNERS

Unless specified otherwise, mitre junctions of identical sections.

1. HOLES

Form without distortion of surrounding metal.

1. MOVING PARTS

When assembled, all moving parts must move freely without binding.

1. CLEANING

Remove all burrs and sharp arrises which would be visible after fixing, or a hazard to the user. Remove any slag or spatter from the welds.

1. RIVETED JOINTS

Draw riveted joints tightly together, with rivets closed to completely fill holes.

1. MECHANICAL JOINTS

Ensure mechanical joints are tight with no gaps. Use fixings suited to purpose and as specified by Ventüer.

1. PREPARATION FOR COATINGS

Before applying coatings remove all welding slag, weld spatter, anti-splatter compounds, paints, grease, flux, rust, burrs and sharp arrises. Make good all defects which would show after application of coating. Finish surfaces smooth.

**COMPLETION**

1. ENSURE

Ensure all elements are free of marks or blemishes, with moving parts working fully and freely.

1. REPLACE

Replace damaged cracked or marked elements.

1. PROTECT

Protect finished work from adjacent and following work.

1. REMOVE

Remove debris, unused materials and elements from the site.

**SELECTIONS**

1. LOUVRE TYPE

Louvres to be Ventüer AL-450W acoustic ventilation louvres.

1. FIXING METHOD

Louvre blades to be fixed within 450mm channel frame / rear fixing brackets. Suitably finished openings shall be provided and taped with flexible flashing tape prior to the installation of louvre panels, in accordance with architectural drawings and Ventüer technical literature.

1. BIRD MESH & BLANKING

Louvre grills to be fitted with 34/18 expanded aluminium bird mesh or 0.8mm aluminium blanking to rear if required, as specified by the Architect.

1. FINISH

Louvre blades and frame to be anodised / powdercoated as specified by the Architect