**Aluminium Glazed Louvre Windows**

**GENERAL**

1. This section deals with the supply and installation of Ventüer aluminium glazed louvre windows.

**DOCUMENTS**

1. DOCUMENTS

Documents referred to in this section are:

EN:12101-2:2003 Smoke and heat control systems. Natural smoke and heat exhaust ventilators.

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. SUPPLIER DOCUMENTS

Suppliers documents relating to this part of work:

Ventüer Limited

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 two 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 WINDOW SYSTEM

Louvre windows shall be Ventüer HAHN-S945 type, certified to DIN EN 12101-2 for smoke and heat-ventilation and TÜV certified in accordance with EC machinery directive 2006/42/EG compliance test.

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 aluminium components shall be powdercoat or anodise as specified by the Architect. See selections.

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.

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 WINDOW TYPE

Louvre blades to be Ventüer HAHN-S945. Flush fitting single glazed louvre windows with 45° polished top and bottom edges, point fixed to short sides only.

1. FRAME SIZE

Frame depth 47 mm, frame facing 18 mm top and bottom, 50 mm side.

1. SUPPORT STRUCTURE

Louvre windows to be screw fixed or structurally glazed to steel, timber or windows joinery frame as specified by the Architect and in accordance with Ventüer technical literature and project specific engineering.

1. CONTROLS

Louvre windows shall be controlled by hand level / crank gear / electrical actuator or pneumatic control as specified by the Architect.

1. FRAME FINISH

Louvre frame to be anodised 20 micron silver or powdercoated in standard RAL colour as specified by the Architect.

1. GLASS TYPE

Glass panels to be single-glazed, either 8, 10 or 12mm thick subject to site specific engineering requirements.