



Introduction

A high performance addition to the existing louvre system from Levolux that is of British design and manufacture. An efficient, simple and effective weather ventilation louvre that has at last achieved the combination of airflow and weatherability without compromise that has eluded other louvre manufacturers over the last 25 years.

The Levolux VLS50XHP/DF is a single one-piece extruded louvre that performs better than all other double bank louvre systems.

Features & Benefits

Aesthetically pleasing - the unique contoured single aerodynamic shape with inherent strength capability has a distinctive profile for a double bank system, whilst still retaining a continuous horizontal appearance. When pitched at 50mm apart the screen becomes a visual barrier irrespective of whatever angle they are viewed.

Virtually maintenance free - its patented pending all aluminium assembly for louvre to mullion clip assembly and A4 stainless steel fasteners, ensures eradication of any bimetallic reaction.

Reduces energy costs - as the unique blade shape is aerodynamically efficient, it has the best coefficient of discharge on the market for an extruded double bank, or even the well-known roll formed version. With air resistance being reduced through the louvre, it allows the aperture and plant equipment to be smaller so saving capital outlay and running costs.

Flexibility - this high performance system is designed to be fitted with the maximum flexibility utilising stainless steel M8 nuts and bolts to be slotted into stainless steel universal fixing brackets. As an extruded double bank it is unique in that the louvre depth is only 123mm deep making it possible for the louvre to be contained within a shallow envelope. It is also possible for the louvres to be fitted between side plates rather than using the standard clip and mullion. This combined with the high strength of the blade allows easy and quick installation with large tolerance capacity within the aperture.

Performance - the VLS50XHP/DF has the most aerodynamically efficient louvre available on the market with an extremely impressive free area (maximum incidence). It is also remarkably weather efficient which, until now, was thought to be impossible, providing both excellent ventilation and rain defence. The aperture for air intake is smaller but the amount of water entering the system is less than any other double bank, or even triple bank system, with a similar coefficient of discharge.

Testing - the high performance double bank system has been tested to EN13030 Edition 5 and has outperformed all other double bank and many triple bank systems.

The Range

Our standard high performance double bank louvre is shown on the opposite page and its design parameters are on the back page. Due to its aerodynamic shape the same louvre can be pitched at both 50mm and 75mm to match our standard VLS50 and 75 louvre systems.

The range of accessories for the louvre include insect mesh, doors, flashings, backing and insulation panels.

Finishes - are available anodised, mill finish or powder coated to any RAL colour.

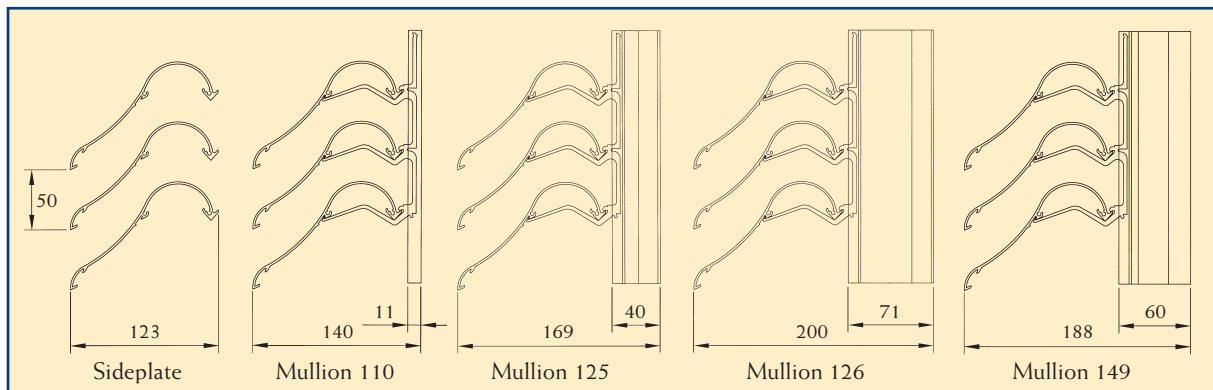
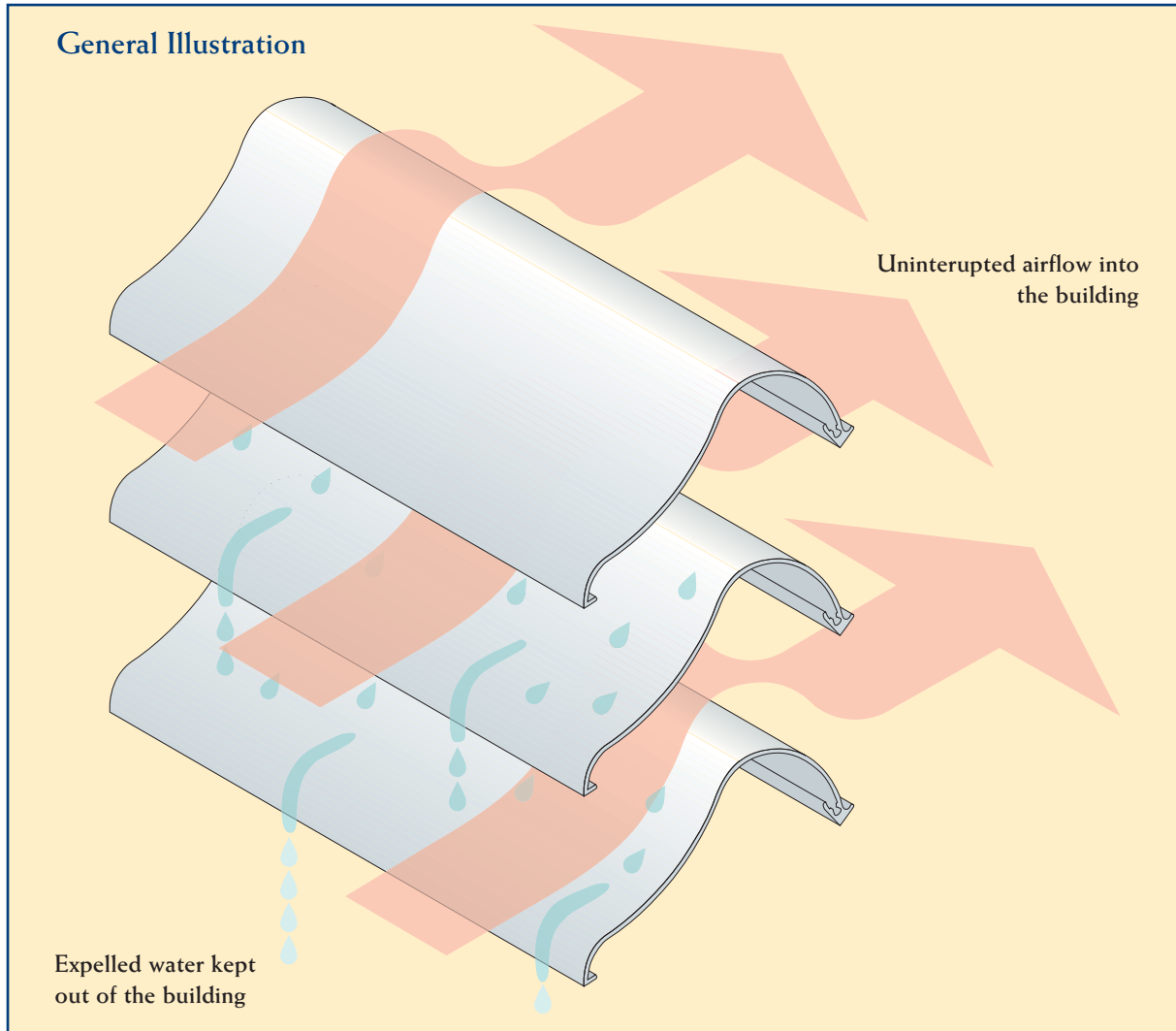
System Construction

- Mullions • Louvres • Clipping System
 - Fixing Brackets • Flashing
- **Mullions** - the mullions are fixed back to Levolux stainless steel adjustable brackets at around 1200mm centres. There are three different types of mullion available. The standard profile and a deeper profile which allows the louvre system to span greater heights, in many cases reducing the need for secondary steelwork.
- **Louvres** - the horizontal aluminium extrusions are important in that they create crisp lines and can be made into the complex shape required of this high performance double bank, twin flow louvre system.
- **Clips** - the unique all aluminium tension clip system has the clip fitted into the slots and locked under the clip above. Once positioned the clip becomes immovable. Only one mechanical fix is required.
- **Fixing Brackets** - stainless steel fixing brackets with slotted holes to overcome small tolerances, both horizontally and vertically.
- **Flashing** - fabricated aluminium flashings are formed to encase the louvre system and form a weather seal around the openings.

3 Year Warranty

All Levolux systems are made of a high grade material to exacting specifications. This enables us to offer a guarantee providing free of charge replacement parts should any system prove defective within 3 years of installation. This guarantee is conditional on manufacturer's recommended fitting, operating and maintenance instructions having been followed.





Weather Effectiveness

Louvre Type	Face velocity (EN13030 Edition 5) m/sec					
	0.0	0.5	1.0	1.5	2.0	2.5
VLS 50XHP/DF	0.0	0.5	1.0	1.5	2.0	2.5
Water Rejection	100%	100%	100%	99.8%	99.5%	98.2%
HEVAC Class	A	A	A	A	A	B

Aerodynamic Performance

Louvre Type	Inlet (cd)			
	Face Velocity EN13030 Edition 5	Core Velocity*	Face Velocity (cw Insect mesh) EN13030 Edition 5	Core Velocity* (cw Insect mesh)
VLS 50XHP/DF	0.32	0.42	0.289	0.39
HEVAC Class	2	1	3	2

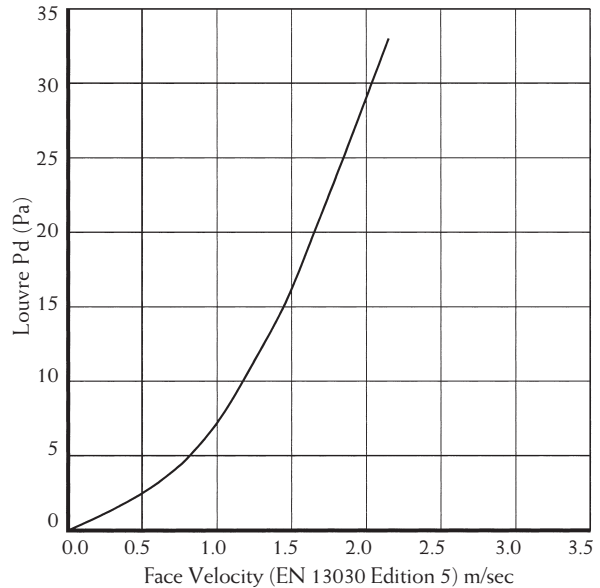
*Core velocities are estimated for comparison purposes



General Description

Louvres - High performance vent louvre with hidden fixing for continuous appearance. All clip to blade and clip to mullion fixings to be aluminium allow 6063 T6 to prevent possible bi-metallic reaction. Weatherability classification nomenclature (from results obtained from the Building Services Research and Information Association) should be as follows below.

Doors - High quality extruded aluminium door designed with bespoke extrusions especially for the purpose of louvres. Hinge type and lock may be specified to suit exact customer requirement. Standard ironmongery Euro-profile mortice deadlock complete with single cylinder and escutcheons, handles integral with the aluminium frame.



Specification

Product - VLS50XHP/DF - high performance 50mm double bank.

Material - All material manufactured from aluminium alloy to BS1474 grade 6063 T6 inclusive of blade, mullion, clips and keys.

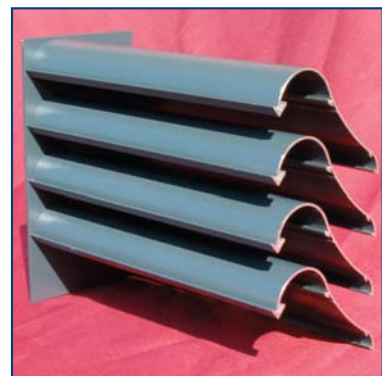
Blade pitch - 50mm pitch with aerodynamically contoured blade with dynamic angles of incidence to aid airflow whilst preventing rain ingress.

Special features - Louvre blades shall be extruded to ensure the most advantageous profile for the minimum pressure losses possible with maximum weatherability; ensuring air flow is not split and turbulence is kept to the absolute minimum. The blade shall be clipped to an all aluminium mullion construction and shall support the blade locally over not less than 25mm width per clip for strength whilst still allowing for thermal expansion. The clip shall be an

aluminium component capable of with standing a temperature of up to 250°C for one hour. The mullion shall be extruded and designed to allow maximum flexibility both in terms of fitting and spanning large centres for minimum secondary steelwork requirement and shall have an average of 3mm wall thickness. All fixings to structure shall be A4 stainless steel. The performance of the blade will be tested to EN13030 edition 5 and effectiveness shall be as follows:

CD - 0.32
Weatherability - Class A up to 2.0m/s
Decorative finish - PPC
 Anodised
 PVF2
 Mill

In line with the policy of continuous product development Levolux reserves the right to alter specifications without prior notice.



For further information on Levolux sunscreening systems and effective ways to control light, heat and glare please contact:

Levolux Limited
 Forward Drive, Harrow,
 Middlesex HA3 8NT.
 United Kingdom
 Telephone: (+44) 020 8863 9111
 Facsimile: (+44) 020 8863 8760
 www.levolux.com
 info@levolux.com



Levolux A.T. Limited
 24 Eastville Close, Eastern Avenue,
 Gloucester GL4 3SJ
 United Kingdom
 Telephone: (+44) 01452 500007
 Facsimile: (+44) 01452 527496
 www.levolux.com
 info@levolux.com