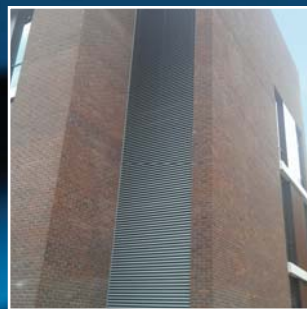
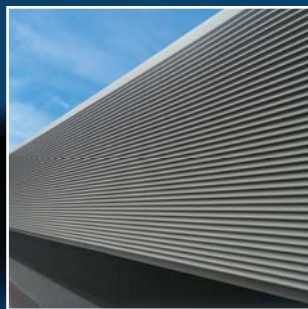


# HIGH PERFORMANCE LOUVRES



*Our details make the world of difference*



## INTRODUCTION

The Crossflow CLS-HP range of louvres are the premium louvres in our range in terms of weather performance and aesthetics and are off the highest standards of design and manufacture. An efficient, simple and effective weather ventilation louvre that provides the combination of airflow, weatherability and pleasing aesthetic appearance.

## FEATURES & BENEFITS

**Aesthetically** – the contoured aerodynamic shape has clean sharp modern lines that provide aesthetically pleasing continuous appearance. The Crossflow CLS-HP50 Louvre will also act as a non-vision screen to fully conceal plant and equipment.

**Virtually maintenance free** – the all aluminium assembly for louvre through to mullion/clip assembly and fasteners, requires minimum maintenance apart from periodic cleaning as outlined in our maintenance manuals.

**Reduces energy costs** – as the blade shape is aerodynamically efficient, it has a low coefficient of discharge thus reducing air resistance through the louvre, and allowing the aperture and plant equipment to be smaller than standard louvres so saving capital outlay and running costs.

**Performance** – the CLS-HP Louvre system combines aerodynamic efficiency and a high free area with very impressive weather efficiency providing both excellent ventilation and rain defence.

## PRODUCT RANGE & APPLICATIONS

Our high performance louvres are available in 50 & 75 mm pitch systems. With the Crossflow CLS-HP50 Louvre providing the highest levels of rain defence (Class A Louvre at 2 metres/sec in accordance with EN13030 Edition 5).

## WEATHER EFFECTIVENESS

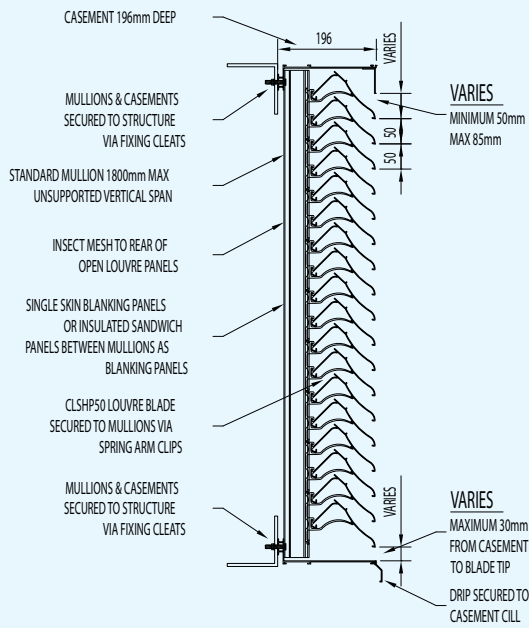
Louvre Type	FACE VELOCITY (EN13030 EDITION 5) M/SEC					
CLS 50 HP/ Water Rejection	0.0	0.5	1.0	1.5	2.0	2.5
	100%	100%	100%	99.8%	99.5%	98.2%
HEVAC Class	A	A	A	A	A	B

## AERODYNAMIC PERFORMANCE

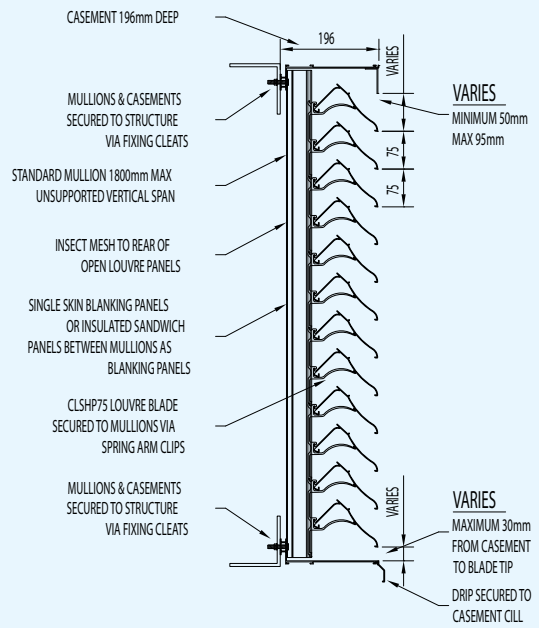
Louvre Type	INLET (CD)			
	Face Velocity EN 13030 Edition 5	Core Velocity	Face Velocity (cw Insect mesh) EN13030 Edition 5	Core Velocity (cw Insect mesh)
CLS 50 HP	0.32	0.42	0.289	0.39
HEVAC Class	2	1	3	2

## SYSTEM CONSTRUCTION

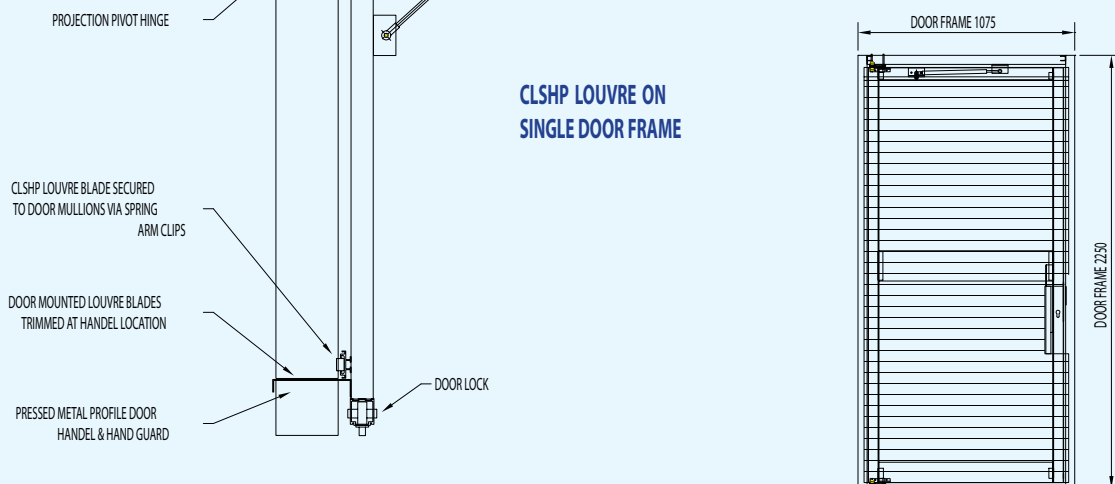
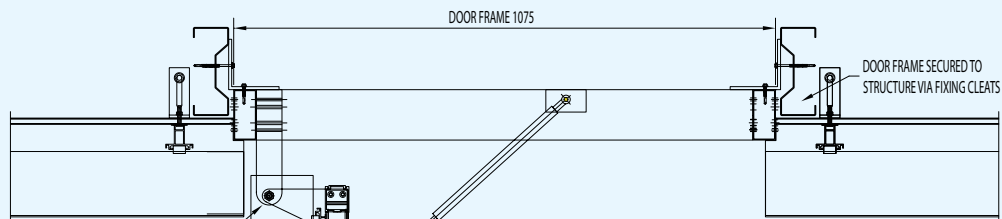
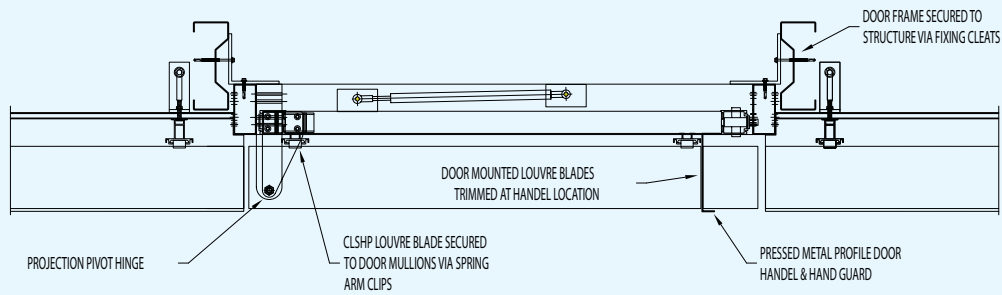
- **Mullions** – the mullions are fixed back to our stainless steel adjustable cleats. There are four different types of mullion available. There is a slim mullion, standard mullion and a structural high span mullion which allows the louvre system to span greater heights in many cases eliminating the need for secondary steelwork.
- **Louvres** – the aluminium louvres are manufactured from extruded aluminium alloy 6063 T6 and are installed in either box or kit form to suit the project specific requirements. They create a clean continuous appearance to any site dimension.
- **Clips** – extruded aluminium blade clips securely fix the louvre blade with a positive spring arm fixing action. No blades are required to be mechanically fixed.
- **Fixing Brackets** – stainless steel fixing cleats with slotted holes to overcome small tolerances, both horizontally and vertically.
- **Flashing** – extruded aluminium casement flashings are specific for the louvre system and create a weather seal around the louvre and a cill drip on the bottom.
- **Corners** – All louvre corners are compound mitred as standard. We can offer mitred and fully welded corners if required.
- **Accessories** – A full range of accessories for the louvres is available that includes insect mesh, rodent/bird mesh, fully integrated louvre doors, casement flashings, single skin backing and insulation panels.
- **Finishes** – All louvres are available anodised, mill finish or powder coated to any RAL or BS colour. A special “Decoral” finish is also available. This gives a realistic wood effect finish at a fraction of the cost of a real timber system.



**CLS HP50 CONTOUR LOUVRE PANEL SYSTEM**



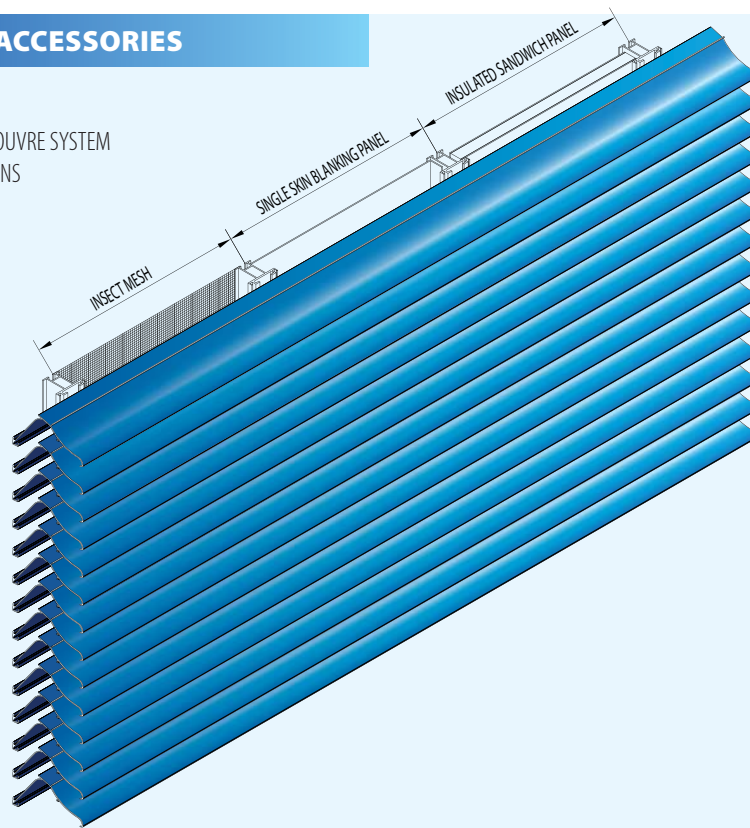
**CLS HP75 LOUVRE PANEL SYSTEM**



**CLSHP LOUVRE ON SINGLE DOOR FRAME**

## LOUVRE ACCESSORIES

- HIGH PERFORMANCE CLSHP75 LOUVRE SYSTEM ON STANDARD SUPPORT MULLIONS
- INSECT MESH TO REAR
- SINGLE SKIN BLANKING PANEL BETWEEN SUPPORT MULLIONS
- INSULATED SANDWICH PANEL BETWEEN SUPPORT MULLIONS



## TECHNICAL SPECIFICATIONS

### CROSSFLOW HIGH PERFORMANCE CLS-HP50 LOUVRE

**Product:** Crossflow CLS-HP50 High performance Louvre - 50mm double bank high performance weather

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

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

**Blade performance:** The blade will be tested to EN13030 edition 5 and effectiveness shall be as follows:

**CD:** 0.29

**Nominal Free Area:** 52%

**Weatherability:** Class A up to 2.0m/s EN1303 Edition 5

### CROSSFLOW HIGH PERFORMANCE CLS-HP 75 LOUVRE

**Product:** Crossflow CLS-HP75 High performance Louvre - 75mm double bank high performance weather

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

**Blade pitch:** 75mm pitch with aerodynamically contoured blade with dynamic angles of incidence to aid airflow whilst preventing rain ingress.

**Blade performance:** The blade will be tested to EN13030 edition 5 and effectiveness shall be as follows:

**CD:** 0.31

**Nominal Free Area:** 58%

**Weatherability:** Class A up to 1.0m/s Class C2 at 2.0m/s (EN13030 Edition 5)

**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.

#### Accessories:

- Louvre System to include matching Single/Double Louvred Door. Door to incorporate the 50mm/75mm/100mm blade system complete with Euro-profile mortice deadlock with single cylinder/thumb turn and

escutcheons, gas stay and stainless steel pivot hinges, shoot bolt to top and bottom on double doors and closure blade casements.

- Blanking to the rear of the louvre blades available in single skin sheet and 25mm/46mm and 66mm insulated panels with Plastisol finish to both sides.
- Insect mesh/bird mesh available in fibreglass/HDPE and aluminium.

#### Finishes Available:

- Polyester Powder Coat, 60 microns to BS8496 to any RAL or BS colour. Select as required
- Anodised finish AA25 to BS3987
- Mill finish natural aluminium
- Decoral Timber effect finish.

**Fixings:** All fixings to be A4 grade stainless steel

**Installation:** By Crossflow Ltd.

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