

SYSTEM 75 VENTILATION LOUVRE SYSTEMS



SYSTEM 75

Proven performance from a leader in engineered building envelope solutions

Part of Lareine Engineering's complete range of building envelope solutions, System 75 louvres offer the specifier a combination of outstanding performance, high quality aesthetics and practical application advantages.

Smoke & natural ventilation by the experts

Utilising System 75 louvres, we have designed and installed ventilation systems for all kinds of buildings in every sector, from retail centres to commercial offices, schools, factories, hotels and others.

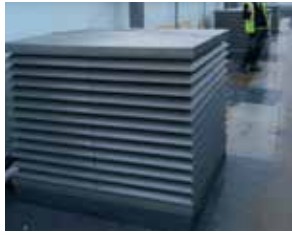
Recent Lareine Engineering projects include well-known buildings like Liverpool's New Everyman Theatre, where System 75 ventilation turrets provide a dramatic landmark on the skyline (below) and the newly refurbished Weston-Super-Mare pier (main picture opposite), as well as hundreds of other applications throughout the UK.

Integrated building envelope solutions

Lareine Engineering brings together expertise in rooflighting and ventilation, allowing single-source solutions which may incorporate ventilation louvres with architectural ventilators, smoke ventilation, rooflights and access hatches.

We can undertake projects from initial consultancy, through specification and system design to installation and commissioning on-site. Every stage of every project is managed by our own experienced in-house teams, under an ISO9001 accredited quality assurance programme.





MAIN PICTURE:
SYSTEM 75
LOUVRES, WESTON-
SUPER-MARE PIER



SYSTEM 75

More ventilation, less rain penetration

System 75 louvres offer the specifier a unique proposition: high levels of ventilation, with outstanding protection against rain penetration – often without the additional cost or complexity of a multi-bank louvre system. The system offers a range of different blade design options (CL, SP, EP & HP) offering performance tailored to application requirements.

System 75 introduction

The System 75 has been developed to provide the optimal performance/cost ratio, together with excellent aesthetics and ease of design and installation.

Manufactured from high quality extruded aluminium, System 75 panels can be finished in any standard RAL colour powder coat, or anodised.

Blade pitching commences with the top blade and then in multiples of 75mm to align with adjoining features such as brick pointing, cladding panels or fenestration.

Non-uniformity of panel or assembly heights can be accommodated by a factory-cropped variable bottom blade.

For continuous appearance, precision cut and fully welded mitred internal and external corners are an integral feature of the system.

Finishes are normally applied after all cutting operations to ensure quality and uniformity.

Varying degrees of performance from a common screen depth

System 75 comprises a range of designs offering varying degrees of performance with a common appearance and depth, so its possible to have a screen that provides different performance in different areas, yet looks the same throughout.

Dimensions & weights

System 75 louvres are available as assemblies or single

panels. There is no limit to overall assembly size, as panels may be banked together vertically or horizontally. Ancillary support is required for assemblies over 2500mm high.

Single panels can be supplied in any length or height between 295mm and 2500mm to a maximum panel area of 2.5m²

Weights of fixed blade panels: 11.63kg/m² – 20.74kg/m²

Weights of adjustable blade panels:
16.67kg/m² – 25.78kg/m²

BSRIA/Hevac tested – in accordance with BS EN 13030:2001

System 75 louvre panels have been tested to the BSRIA/Hevac method of weather testing louvres. (Natural Ventilation).

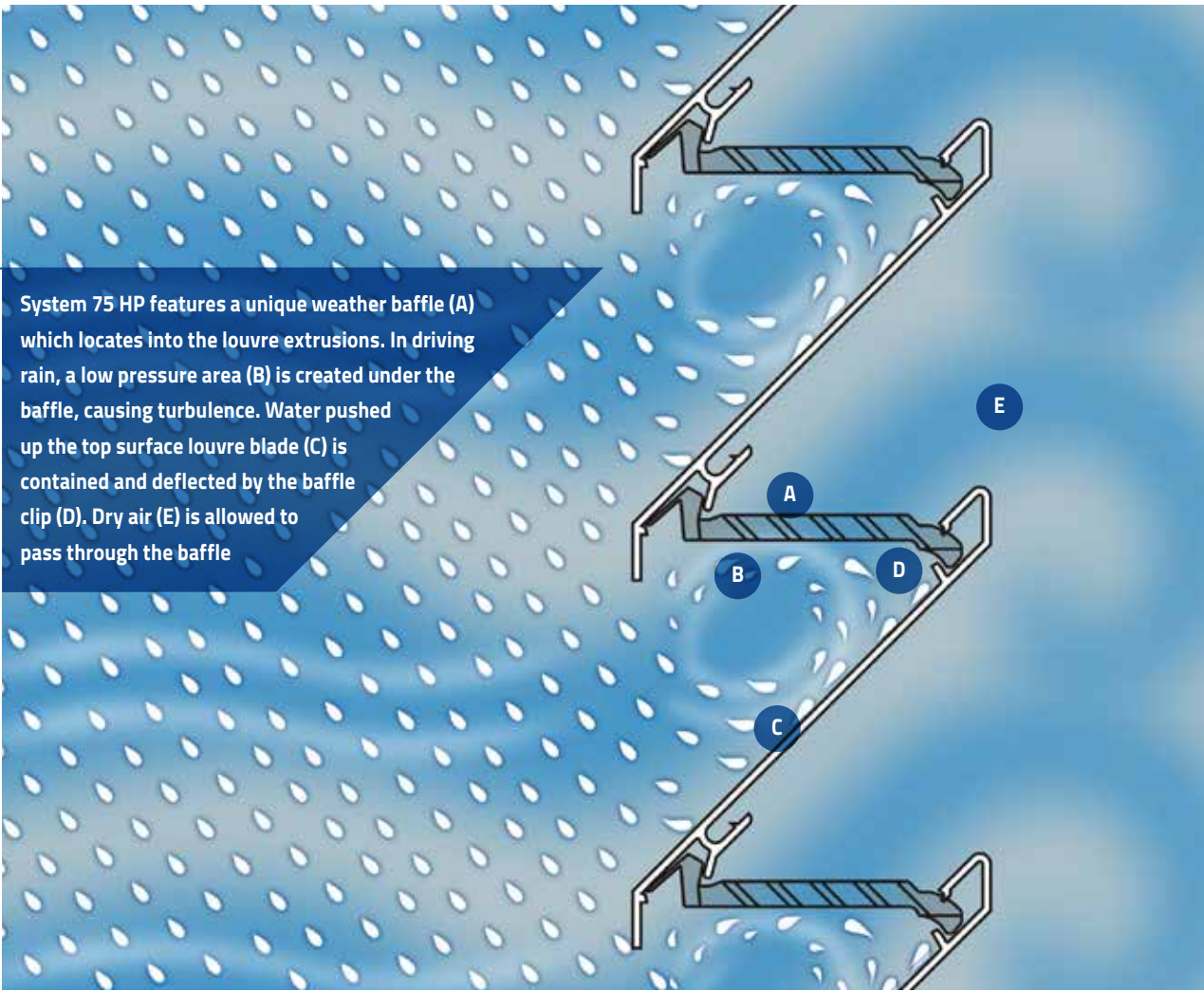
The test rig is approximately 10m long incorporating a 3m² wall into which a 1m² louvre panel is mounted for testing. Louvres are tested for the following performance areas:

i) Effectiveness: ability to reject rain from penetrating the louvre, both with and without simulated wind.

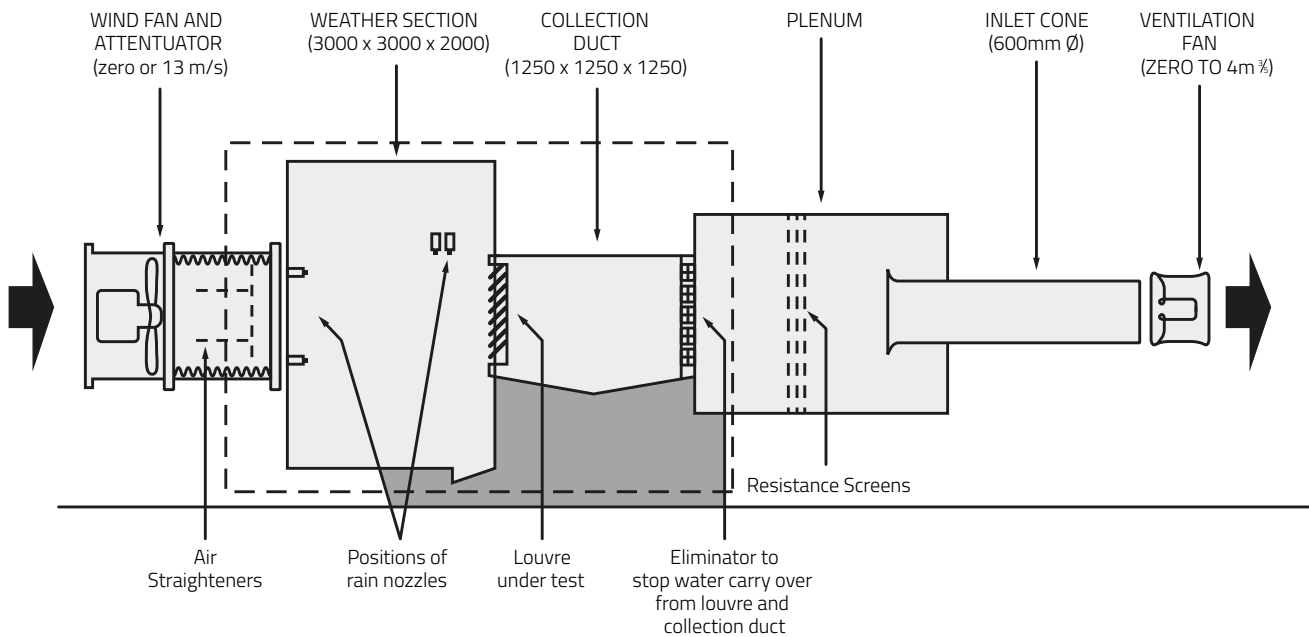
ii) Coefficient of discharge (Cd): all flow rate (pressure loss) characteristic.

iii) Overall performance: effectiveness x Cd. It should be noted that this value can mislead since a poorly weathered louvre can achieve an apparently high overall performance if airflow is good. Therefore Effectiveness and Coefficient of discharge should always be considered independently of overall performance.

System 75 HP principle of operation



BSRIA rain penetration test rig for louvre systems



SYSTEM 75 CL

The economical louvre screening/
weathering solution

Where screening or higher airflows are required, allied to a more conventional weathering, the System 75 CL offers the same quality as other System 75 profiles at a more economical cost.

Design overview

Available as panels or assemblies (any size), rooftop cladding or general louvre screens, including doors, corners, triangles and rakes.

Any size is available (subject to supporting structure), made up of individual panels whose sizes are:

Length: Min.160mm; Max 2500mm

Height: Min.160mm; Max 2500mm

Maximum face area: 2.5m²

Can be supplied with bird/vermin guards or flyscreens fixed to rear of blades.

Performance overview

PHYSICAL FREE AREA at 1m high: 48.5%

Specification details

Full specification details are available at: <http://lareineengineering.com/downloads/louvre-data-sheets/>



SYSTEM 75 SP

Special Performance – can be supplied with optional integral exclusion guards

System 75 SP louvre panels are the ideal solution for applications requiring very high throughputs of fresh air for smoke or natural ventilation systems, with good protection from rain penetration, such as car parks, transport depots and sports stadia.

Design overview

With its downturn on the front and the return lip at the rear of the blade extrusion creates a highly effective weathered louvre profile, 96.2% effective at rejecting rain when tested to the BSRIA/Hevac method of weather testing louvres. (Natural Ventilation).

Available as panels or assemblies (any size), rooftop, cladding or general louvre screens including doors, corners, triangles, circles and rakes.

Any size is available (subject to supporting structure) made up of individual panels

Performance overview

RAIN PENETRATION REJECTION:	96.2%
PHYSICAL FREE AREA at 1m high*:	40.4%
K FACTOR (inc optional bird guard)	7.63

*with optional weathergrid

Specification details

Full specification details are available at: <http://lareineengineering.com/downloads/louvre-data-sheets/>



System 75 EP

Extra Performance – with integral weather grid

System 75 EP louvre panels provide additional protection against rain penetration, making them suitable for smoke and natural ventilation in a wide range of applications which includes the retail sector, commercial offices, educational establishments and other areas.

Design overview

Where a higher degree of weathering is required, the System 75EP is considered to provide the weathering characteristics of a double banked louvre in a single banked format. This is achieved by the polypropylene Vermin/Weather guard 'snap-fitted' between the blades and with the inclusion of the weather-lip this combination makes a highly effective louvre.

The 75EP offers 98% effectiveness at rejecting rain when tested to the BSRIA/Hevac method of weather testing louvres. (Natural Ventilation)

Available as panels or assemblies (any size), rooftop, ladding or general louvre screens including doors, corners, triangles, circles and rakes.

Performance overview

RAIN PENETRATION REJECTION:	98%
PHYSICAL FREE AREA at 1m high:	35.0%
K FACTOR (inc optional bird guard)	11.89

Specification details

Full specification details are available at: <http://lareineengineering.com/downloads/louvre-data-sheets/>



SYSTEM 75 HP

High Performance – the ultimate in louvre efficiency

System 75 HP louvre panels provide unmatched rain rejection performance, making them suitable for single-bank installation even in the most critical applications, including plant rooms with electrical equipment.

Design overview

The System 75HP is considered to hold the weathering characteristics of a multi-banked louvre in a single-banked format. This is achieved by the polypropylene HP Baffle 'snap-fitted' between the blades and with the inclusion of the weather-lip this combination makes a highly effective louvre.

The 75HP offers 99.6% effectiveness at rejecting rain when tested to the BSRIA/Hevac method of weather testing louvres. (Natural Ventilation).

Available as panels or assemblies (any size), rooftop, cladding or general louvre screens including doors, corners, triangles, circles and rakes.

Due to the inclusion of the HP Baffle the only additional exclusion guards to consider are flyscreens.

Performance overview

RAIN PENETRATION REJECTION:	99.6%
PHYSICAL FREE AREA at 1m high:	23.0%
K FACTOR	52.5

Specification details

Full specification details are available at: <http://lareineengineering.com/downloads/louvre-data-sheets/>



SYSTEM 75 guards

A range of durable and efficient snap-fit components

System 75 guards and baffles are designed to provide optimised performance and practicality. They are manufactured from tough, hard-wearing flame retardant polypropylene.

Exclusion guard

Soffit-mounted exclusion guards are snap-locked into the louvre blades to maintain continuity of appearance. Guards available in black only.

Birdguard

This patented birdguard design is in flame-retardant polypropylene, with an aperture size, (centre to centre of material) of 50mm x 15mm.

Weatherguard/verminguard

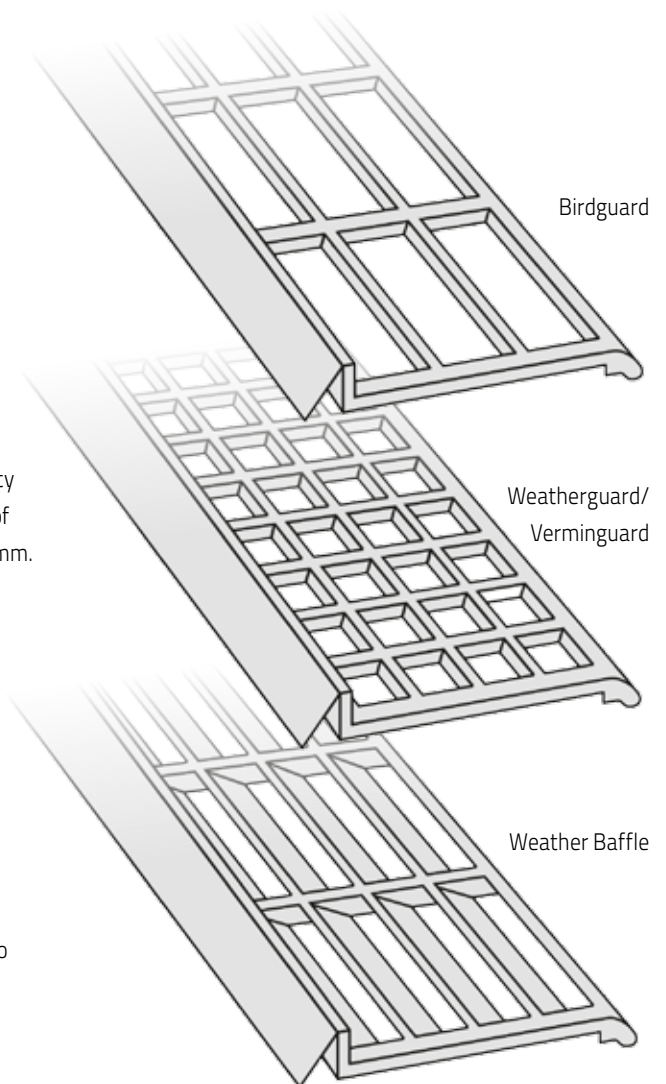
This dual purpose component enhances weathering capacity and also acts as a birdguard and vermin guard. Also made of flame retardant polypropylene, the grid size is 10mm x 10mm.

HP Weather baffle

This is a rain defence baffle of similar configuration to weathergrid but being a 'reversed' louvred design, offering high weathering and virtual vision proof screening. It is designed for use with the System 75 HP louvre system.

Options

- Aluminium fly/insect screens
- Woven stainless steel fly/insect screens
- Expanded metal guards (can be finished in powder coat to match louvre blades)



System 75 Turrets & doors

Completing the integrated ventilation solution

System 75 louvres can be used to fabricate turrets and doors to suit a wide variety of applications.

Turrets

System 75 turret assemblies with pressed metal roofs can be specified for supply and exhaust air.

These are mounted on prepared builders' kerbs with a minimum clear height of 150mm and a minimum thickness of 100mm for concrete.

There is no limitation on the length of turrets but width is restricted to 2200mm. Turrets exceeding this size will require additional structural support and roofing fabric by other specialist contractors.

The free area of turrets is dictated by the opening in the roof and therefore, this criteria needs to be taken into account.



Doors

Doors can be supplied with all System 75 louvre blades fitted to extruded aluminium section door frames.

They can be supplied as single or double leaf to suit the opening, and are supplied complete with our own special door furniture.





DAYLIGHTING & VENTILATION FROM CONCEPT TO INSTALLATION

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