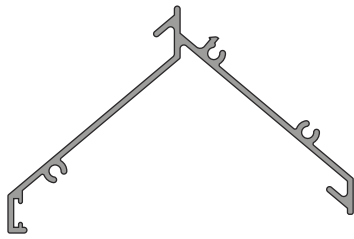


## LWH-100-50-DE

Weather Louvre System  
Technical Datasheet

### SYSTEM ATTRIBUTES



Max. Rainwater  
Rejection Class



Nominal  
Free Area



Louvre Blade  
Depth (mm)



Aerodynamic  
Performance Class



Typical Mass  
per Unit Area (kg/m<sup>2</sup>)



Louvre Blade  
Pitch (mm)

### SUMMARY OF FEATURES

- Formally known as WLAC 100DP
- Zero line of sight through the louvres due to the chevron type geometry
- Double pass airway and water traps leading to very effective water rejection
- Tested at BSRIA to BS EN 13030:2001
- Tested to the CWCT standard for systemised building envelopes
- Certified for safety up to 3.6 kPa wind load
- Certified for safety up to 500J soft-body impact
- Certified for fatigue up to 6400 cyclic load tests
- Extruded from grade 6063-T6 aluminium
- Suitable for an architectural PPC or anodised finish
- All aluminium construction means any waste is 100% recyclable
- No polyamide (Nylon) combustible components
- Horizontal blade alignment
- Modular option with aluminium frame
- Continuous line option with hair line joints



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To establish the core area of louvre knowing that a certain pressure loss is required for a given volume of air, the following formula may be used:

$$A = \frac{Q}{v}$$

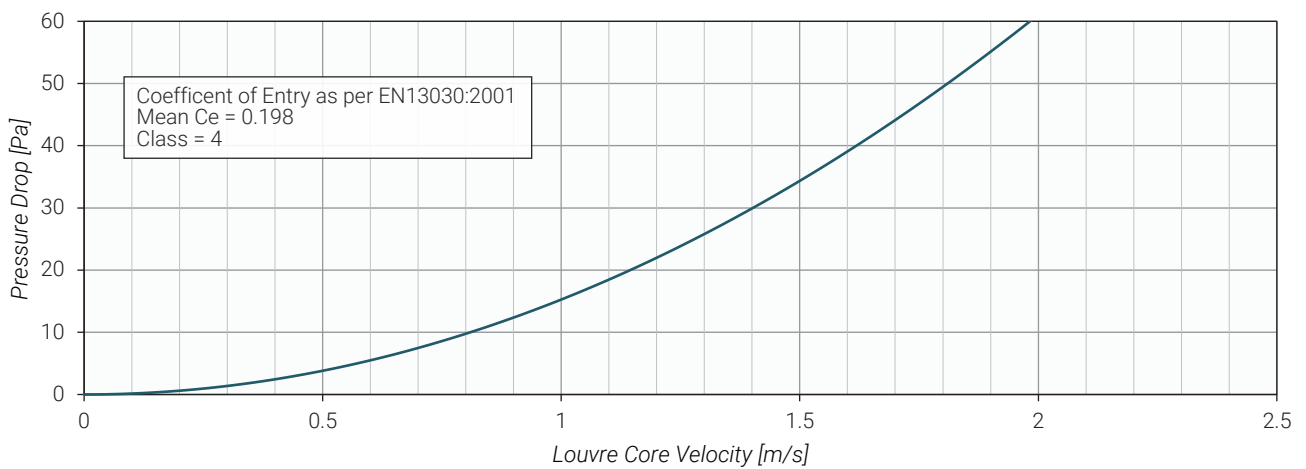
Where:  $A$  is the louvre core area [m<sup>2</sup>]       $Q$  is volume flow rate [m<sup>3</sup>/s]  
 $v$  is the louvre core velocity - read off the chart below [m/s]

To establish the pressure drop knowing that a certain louvre size is available for a given volume of air, the following formula may be used:

$$P_d = \left( \frac{7 \times Q}{9 \times A \times C_e} \right)^2$$

Where:  $P_d$  is the pressure drop [Pa]       $A$  is the louvre core area [m<sup>2</sup>]  
 $Q$  is the volume flow rate [m<sup>3</sup>/s]       $C_e$  is the loss coefficient

Pressure Loss Graph for 1m High Emtec Type LWH-100-50-DE

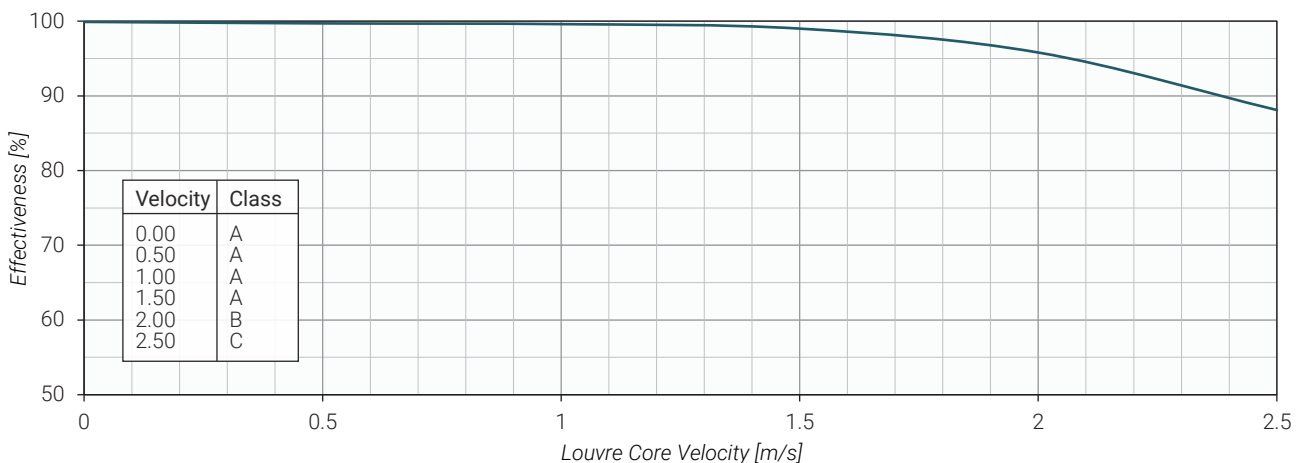


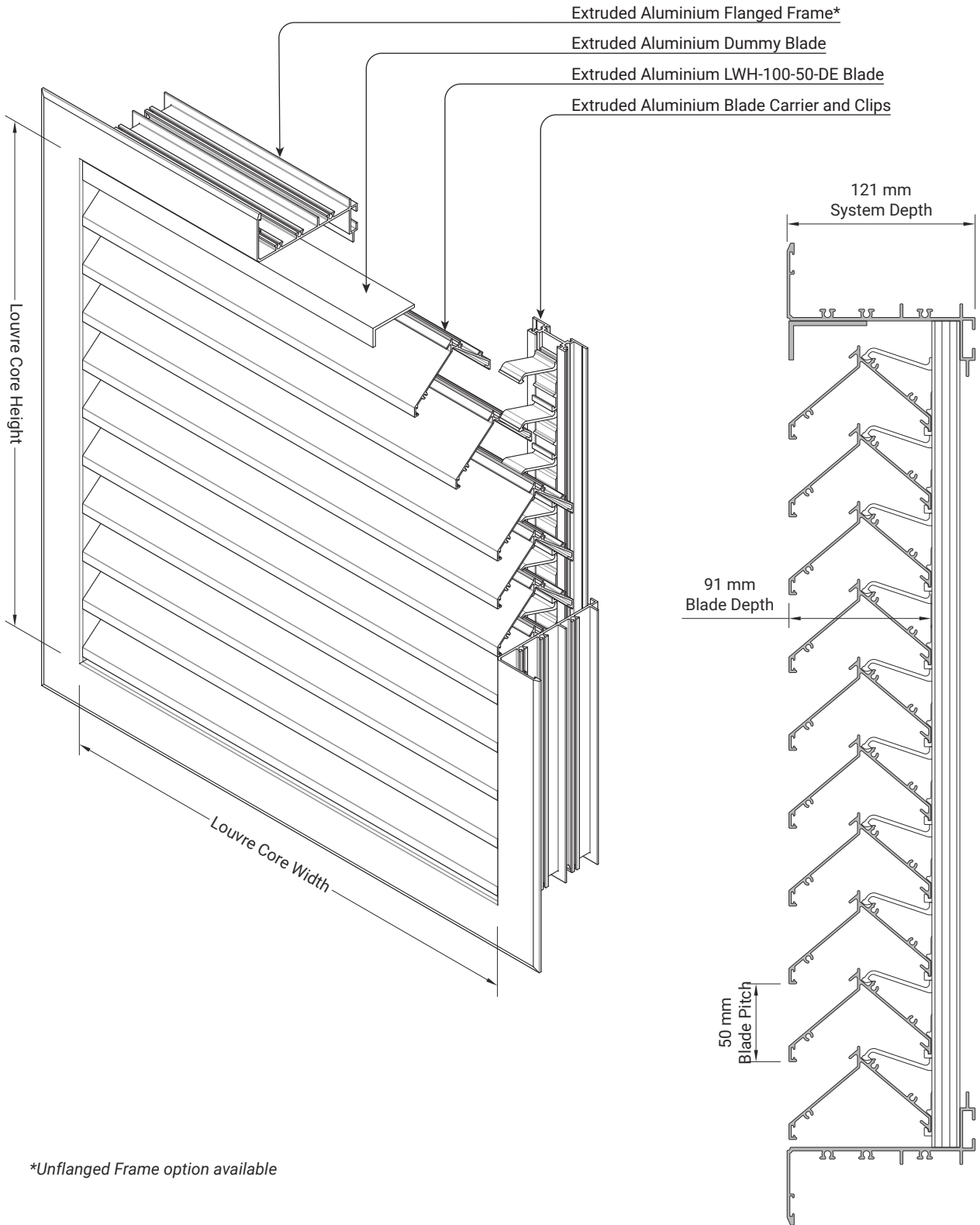
RAINWATER PENETRATION

Emtec's type LWH-100-50-DE louvre system has been tested at BSRIA in accordance with EN13030:2001.

The louvre is subjected to fan driven wind speed of 13 m/s and water sprayed at 75 l/h. In addition to simulated wind and rain, air is drawn through the louvre at various face velocities. Effectiveness is measured as a percentage of the water rejected by the louvre.

Effectiveness of Louvre with Simulated Wind and Rain for Emtec Type LWH-100-50-DE





\*Unflanged Frame option available

Louvre Core Area = Louvre Core Width x Louvre Core Height  
 Louvre Core Velocity = Volume Flow Rate ÷ Louvre Core Area



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## Systems

### Ss\_25\_50\_45\_45 Louvre screen systems

1. Description: [Continuous/ Modular] aluminium weather louvre system [Delete as appropriate]
2. System Reference: LWH-100-50-DE
3. System manufacturer:
  - i. Emtec Products Ltd
  - ii. Web: [www.emtecproducts.co.uk](http://www.emtecproducts.co.uk)
  - iii. Email: [sales@emtecproducts.co.uk](mailto:sales@emtecproducts.co.uk)
4. Louvres
  - i. Blades: [Pr\\_30\\_59\\_48\\_02 Aluminium louvre blades](#)
  - ii. Mullions: [Pr\\_30\\_59\\_48\\_78 Screening and ventilation louvre support frames](#)
  - iii. Frames: [Pr\\_30\\_59\\_48\\_03 Aluminium louvre frames](#)
5. Operation: Fixed
6. System performance: [Ss\\_25\\_50\\_45/205 Compliance with performance requirements](#); [Ss\\_25\\_50\\_45/215 Design of acoustic, screening and ventilation louvre systems](#); [Ss\\_25\\_50\\_45/220 Durability](#)
7. Installation fasteners: As recommended by the manufacturer.

## Products

### Pr\_30\_59\_48\_02 Aluminium louvre blades

1. Description: Extruded weather louvre blade
2. Product Reference: EMT132
3. Manufacturer:
  - i. Emtec Products Ltd
  - ii. Web: [www.emtecproducts.co.uk](http://www.emtecproducts.co.uk)
  - iii. Email: [sales@emtecproducts.co.uk](mailto:sales@emtecproducts.co.uk)
4. Pitch: 50mm
5. Depth: 100mm
6. Material: 6063-T6 high quality extruded aluminium alloy to BS EN 755-1
7. Finish: Powder Coating to BS EN 12206-1 [Insert Qualicoat Class] - or - Anodising to BS EN 3987 [Insert Qualanod if required]. [Delete as appropriate]
8. Colour: [Insert RAL colour code] - or - [Insert anodised colour]. [Delete as appropriate]
9. Construction: Clip mounting to support frames

### Pr\_30\_59\_48\_78 Screening and ventilation louvre support frames

1. Description: Extruded louvre support mullion with riveted clips
2. Product Reference: EMT102
3. Manufacturer:
  - i. Emtec Products Ltd
  - ii. Web: [www.emtecproducts.co.uk](http://www.emtecproducts.co.uk)
  - iii. Email: [sales@emtecproducts.co.uk](mailto:sales@emtecproducts.co.uk)
4. Material: 6063-T6 high quality extruded aluminium alloy to BS EN 755-1
5. Finish: Powder Coating to BS EN 12206-1 [Insert Qualicoat Class] - or - Anodising to BS EN 3987 [Insert Qualanod if required]. [Delete as appropriate]
6. Colour: [Insert RAL colour code] - or - [Insert anodised colour]. [Delete as appropriate]
7. Construction: As recommended by the manufacturer.

### Pr\_30\_59\_48\_03 Aluminium louvre frames

1. Description: Extruded weather louvre flanged - or - unflanged frame. [Delete as appropriate]
2. Product Reference: EMT117 (flanged) - or - EMT108 (unflanged). [Delete as appropriate]
3. Manufacturer:
  - i. Emtec Products Ltd
  - ii. Web: [www.emtecproducts.co.uk](http://www.emtecproducts.co.uk)
  - iii. Email: [sales@emtecproducts.co.uk](mailto:sales@emtecproducts.co.uk)
4. Material: 6063-T6 high quality extruded aluminium alloy to BS EN 755-1
5. Finish: Powder Coating to BS EN 12206-1 [Insert Qualicoat Class] - or - Anodising to BS EN 3987 [Insert Qualanod if required]. [Delete as appropriate]
6. Colour: [Insert RAL colour code] - or - [Insert anodised colour]. [Delete as appropriate]

## System performance

### Ss\_25\_50\_45/205 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Method
  - i. Previous test results: For louvre performance
3. Submittals: Typical plan, elevation and section drawings at suitable scales.

### Ss\_25\_50\_45/215 Design of acoustic, screening and ventilation louvre systems

1. Weather performance: Class [Insert performance requirement] @ [Insert maximum core velocity] m/s to BS EN 13030
2. Inlet operation [Refer to the performance characteristics graphs to select values]
  - i. Water penetration class (minimum): To BS EN 13030, Class [Insert water penetration Class].
  - ii. Entry loss coefficient (minimum): To BS EN 13030, Class 4.
  - iii. Core velocity (maximum): Up to [Insert maximum core velocity] m/s.
3. Discharge operation
  - i. Discharge loss coefficient (minimum): Class 4.

