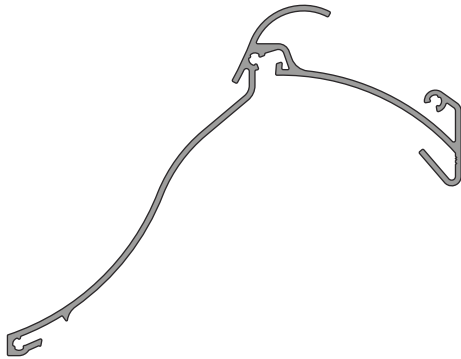


LWH-120-60-DE

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/m²)



Louvre Blade
Pitch (mm)

SUMMARY OF FEATURES

- Formerly known as WLAC 120-60
- Blade geometry developed with use of computational fluid dynamics to optimise airflow characteristics
- Water traps reduce the ingress of rain water to a minimum
- 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 all components are 100% recyclable
- No polyamide (Nylon) combustible components
- Horizontal blade alignment
- Modular option with aluminium frame
- Continuous line option with hair line joints



emtecproducts.co.uk
+44 (0)20 8848 3031
sales@emtecproducts.co.uk

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:

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

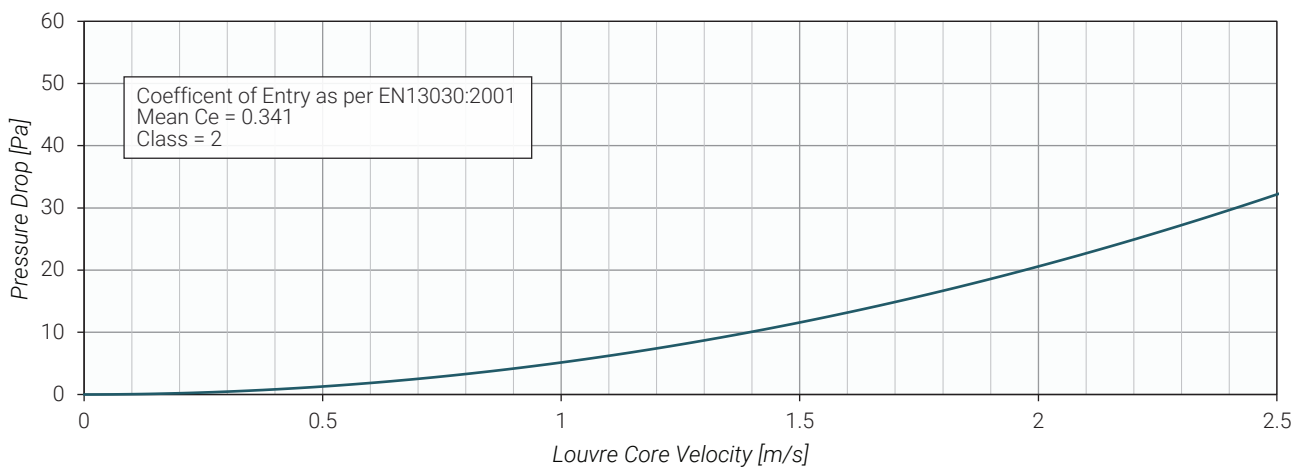
Where: A is the louvre core area [m²] Q is volume flow rate [m³/s]
 v is the louvre core velocity - read off the chart below [m/s]

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 [m²]
 Q is the volume flow rate [m³/s] C_e is the loss coefficient

Pressure Loss Graph for 1m High Emtec Type LWH-120-60-DE

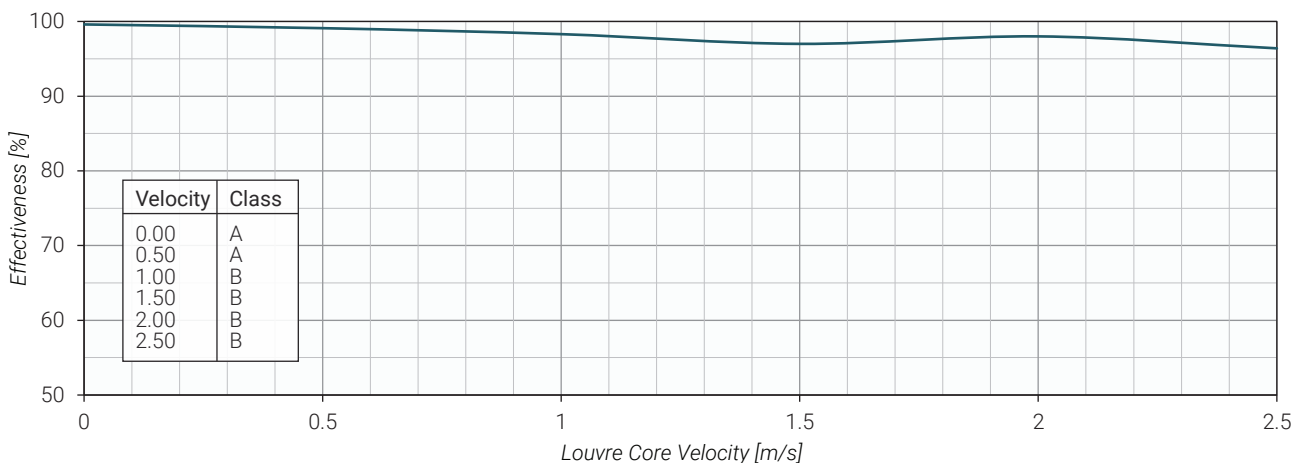


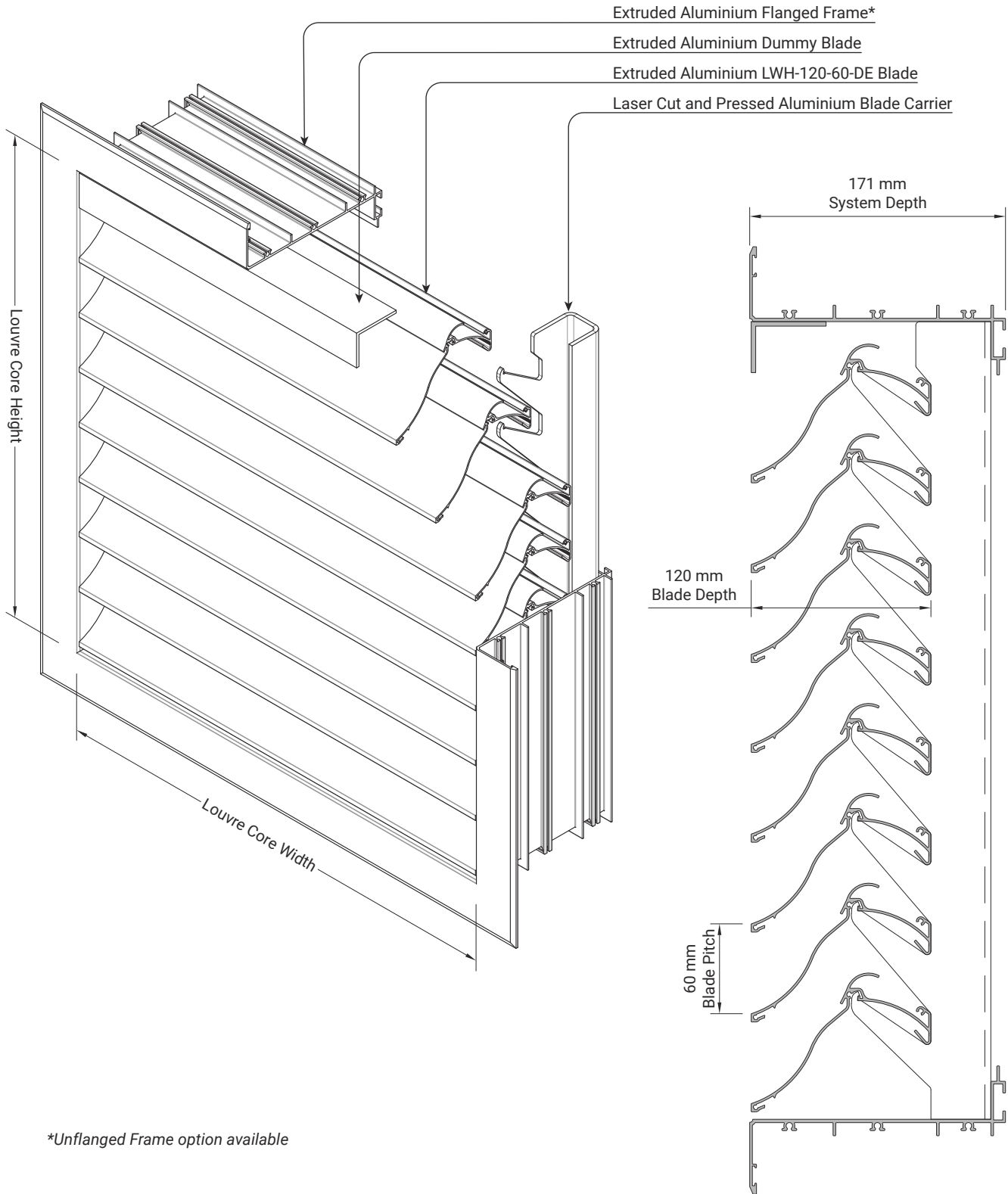
RAINWATER PENETRATION

Emtec’s type LWH-120-60-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-120-60-DE





*Unflanged Frame option available

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

Systems

Ss_25_50_45_45 Louvre screen systems

1. Description: **[Continuous/ Modular]** aluminium weather louvre system **[Delete as appropriate]**
2. System Reference: LWH-120-60-DE
3. System manufacturer:
 - i. Emtec Products Ltd
 - ii. Web: www.emtecproducts.co.uk
 - iii. Email: 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: EMT161
3. Manufacturer:
 - i. Emtec Products Ltd
 - ii. Web: www.emtecproducts.co.uk
 - iii. Email: sales@emtecproducts.co.uk
4. Pitch: 60mm
5. Depth: 120mm
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: Laser cut and pressed louvre support mullion
2. Product Reference: EMT166
3. Manufacturer:
 - i. Emtec Products Ltd
 - ii. Web: www.emtecproducts.co.uk
 - iii. Email: sales@emtecproducts.co.uk
4. Material: 5083 high quality aluminium alloy to BS EN 755-1 laser cut and pressed
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: **EMT164 (flanged) - or - EMT165 (unflanged). [Delete as appropriate]**
3. Manufacturer:
 - i. Emtec Products Ltd
 - ii. Web: www.emtecproducts.co.uk
 - iii. Email: 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 2.
 - iii. Core velocity (maximum): Up to **[Insert maximum core velocity]** m/s.
3. Discharge operation
 - i. Discharge loss coefficient (minimum): Class 3.

