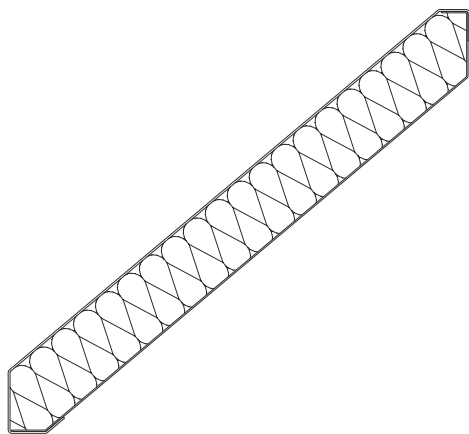


## LAH-300-105-SF

Acoustic Louvre System  
Technical Datasheet



### SYSTEM ATTRIBUTES



Max. Rainwater  
Rejection Class



Sound Reduction  
Index Rw (dB)



Louvre Blade  
Depth (mm)



Aerodynamic  
Performance Class



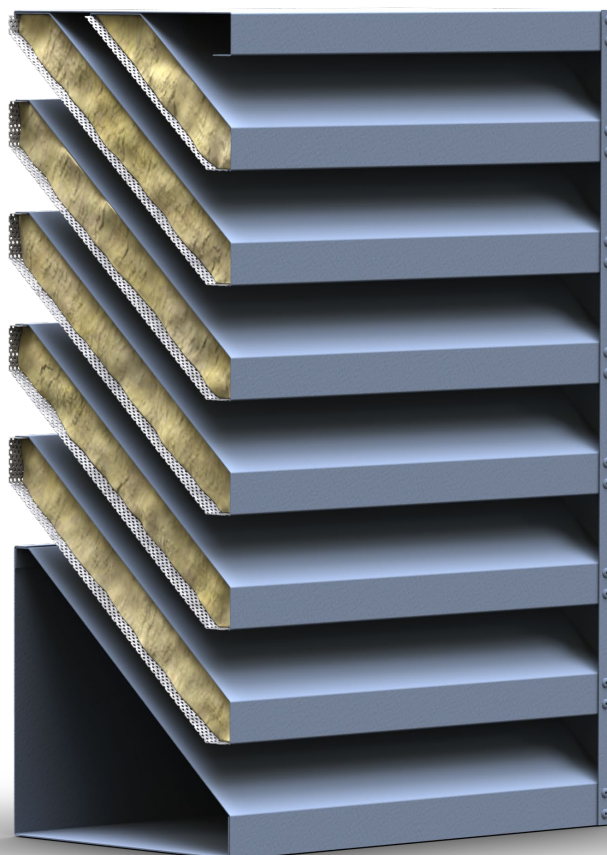
Typical Mass  
per Unit Area (kg/m²)



Louvre Blade  
Pitch (mm)

### SUMMARY OF FEATURES

- Formerly known as LAAC 30-105
- Acoustically absorptive blade elements specifically designed to reduce the level of noise transmission
- 30% nominal free area
- The acoustic media contained within the louvre blades is inert, non- flammable mineral wool
- Tested in accordance with EN10140-2:2010 at SRL Technical Services Ltd
- Tested at BSRIA to BS EN 13030:2001
- Fabricated from galvanised sheet steel
- Suitable for an architectural PPC finish
- No polyamide (Nylon) combustible components
- Horizontal blade alignment
- Modular appearance with vertical joints



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## ACOUSTIC PERFORMANCE

LAH-300-105-SF

Emtec's type LAH-300-105-SF louvre has been tested in accordance with EN10140-2:2010.

The  $R_w(C;Ctr)$  rating provided below is according to EN 717-1:2013.

Sound Reduction Index in dB at Octave Band Centre Frequencies (Hz)

63*	125	250	500	1k	2k	4k	8k	$R_w$
5	7	8	12	26	34	32	22	19 (-1;5)

## AERODYNAMIC PERFORMANCE

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:

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

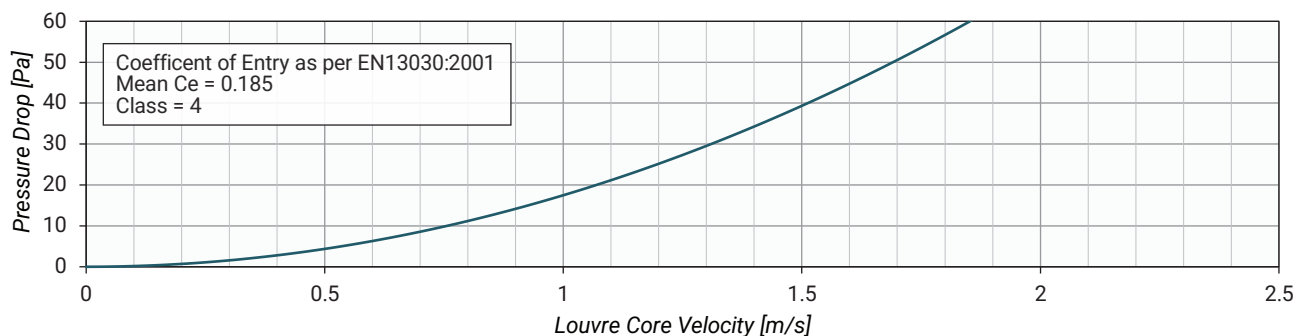
Where:  $A$  is the louvre core area [m<sup>2</sup>]  $Q$  is volume flow rate [m<sup>3</sup>/s]  
 $v$  is the louvre core velocity - read off the chart below [m/s]

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 LAH-300-105-SF

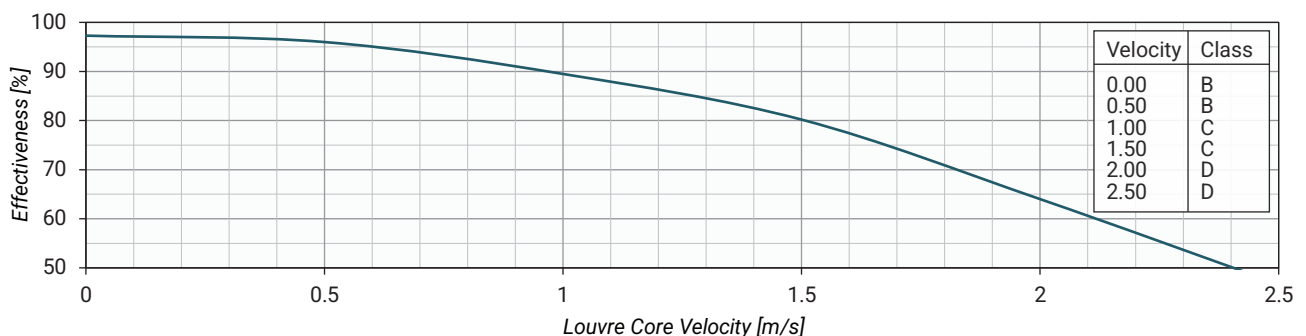


## RAINWATER PENETRATION

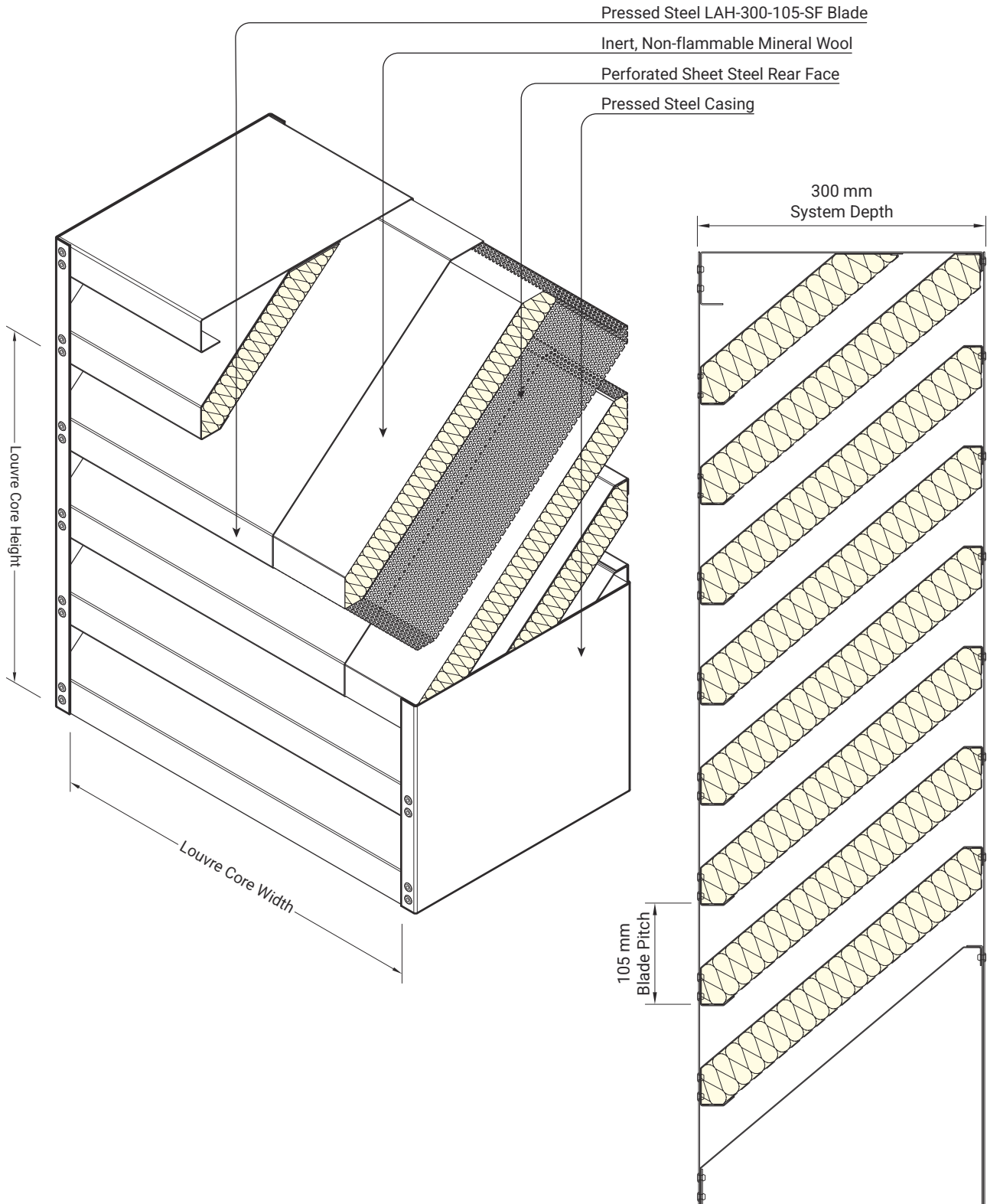
Emtec's type LAH-300-105-SF louvre system has been tested at BSRIA in accordance with EN13030:2001.

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 LAH-300-105-SF



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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: Modular steel acoustic louvre system
2. System Reference: LAH-300-105-SF
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: [Pr\\_30\\_59\\_48\\_13 Carbon steel louvre panel units](#)
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\_13 Carbon steel louvre panel units

1. Description: Fabricated acoustic louvre blade
2. Product Reference: LAH-300-105
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: 105mm
5. Depth: 300mm
6. Material
  - i. Blade fronts: Z275 galvanised steel sheet
  - ii. Blade infill: Inert, non-flammable mineral wool
  - iii. Blade backs: Perforated steel sheet
  - iv. Casing: Z275 galvanised steel sheet
7. Finish: Powder Coating to BS EN 12206-1 [\[Insert Qualicoat Class\]](#)
8. Colour: [\[Insert RAL colour code\]](#)
9. Construction: Clip mounting to support frames

## 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. Acoustic performance: Weighted sound reduction index,  $R_w(C;Ctr) = 19 (-1;5)$  dB
2. Weather performance: Class [\[Insert performance requirement\]](#) @ [\[Insert maximum core velocity\]](#) m/s to BS EN 13030
3. 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.
4. Discharge operation
  - i. Discharge loss coefficient (minimum): Class 4.

