

ideal
louvers

75mm Pitch Weather Louvre

EWB75 Series

Product Overview

idealair EWB75 external weather louvres are ideal for intake or exhaust applications. Blades are mounted at 45 degrees in a perimeter frame and overlap to ensure good protection against water ingress. Bird screen is fitted to all louvres as standard.

Construction

Frames and blades are manufactured from 6063 T6 extruded aluminium. On sizes of up to 1 square metre frame mitres are mechanically jointed and tig welded on the rear and neck for added strength and rigidity preventing any distortion of the hairline mitres, on sizes larger than 1 square metre frames are fully welded. Standard bird screen is 19swg galvanised wire with cell sizes of 12.5 x 12.5mm.

Size Range

100 x 200mm to 2000 x 2000mm nominal size in 50mm increments. Special sizes and multiple units are available on a made to order basis. Please enquire for details.

Finish

MF - Mill Finish (Standard)

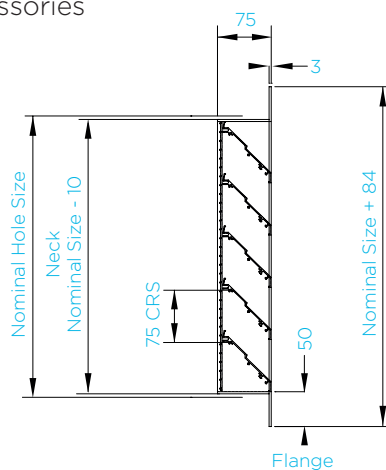
PPL RAL - Stock RAL colours available to order

Accessories

Please specify the accessories on your order.

IS - Insect Screen

VG - Vermin Guard



Fixing

Louvre is supplied with no fixing as standard and applied by others. Alternative fixing methods are available on request.

N - No fixing provided (Fixing by others)

S - Countersunk flange holes

C - Neck fixing (Fixing by others)

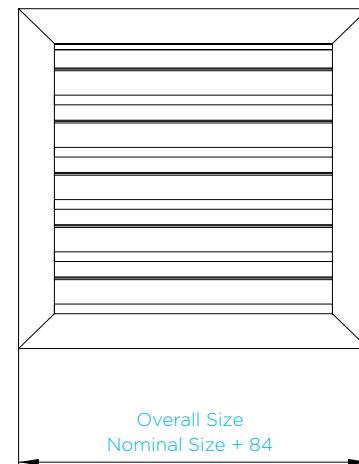
R - Rear fixing lugs

Special Requirements

The standard flange is on the EWB75 range of louvres is 50mm but any size of flange is available as an option, fully customisable to suit project specific requirements, offering various styles of perimeter frame such as recessed, reversed or channel frames for glazing applications.

Louvres can be manufactured in a variety of different shapes, such as circular or triangular and multiple panel configuration are available with mullion or continuous appearance to suit your requirements. Single and double doors are also available, please contact us with your requirements.

**Independently tested to EN13030
for water penetration.**



All measurements in millimetres (mm)

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Performance Data

Pressure & Velocity

Pressure loss occurs when a louvre is placed into an opening, and air is drawn through it, and may be calculated from the following formulae:

$$Pa = \left(\frac{\sqrt{1/2P \times V^2}}{Ce} \right)^2$$

$$V = \sqrt{\frac{Pa \times Ce^2}{1/2P}}$$

A	Area m ²	Pa	Pressure Pascals
Q	Volume m ³ /s	Ce	Louvre Coefficient
V	Velocity m/s	P	Air Density (1.2kg/m ³)

Selection Procedure 1

- Determine the pressure drop (Pa), across an 1100mm (W) x 915mm (H) EWB50 series louvre with bird guard suitable of handling 2 m³/s.
- Determine the air velocity passing through the louvre (m³/s).

From dimension details Area (m²) = Nominal sizes minus 10mm.
(W-10/1000) x (H-10/1000)

$$A = (1100-10/1000) \times (915-10/1000)$$

$$A = 1.09 \times 0.905$$

$$A = 0.986 \text{ m}^2$$

$$\text{Velocity (m/s)} = Q/A$$

$$V = 2 / 0.986$$

$$V = 2.028 \text{ m/s}$$

- From the adjacent chart look up face velocity (m/s), recording the pressure drop (Pa) and Effectiveness (%).
At 2 m/s Pressure = 30 Pa and Effectiveness = 64%

Calculation Example (velocity formula)

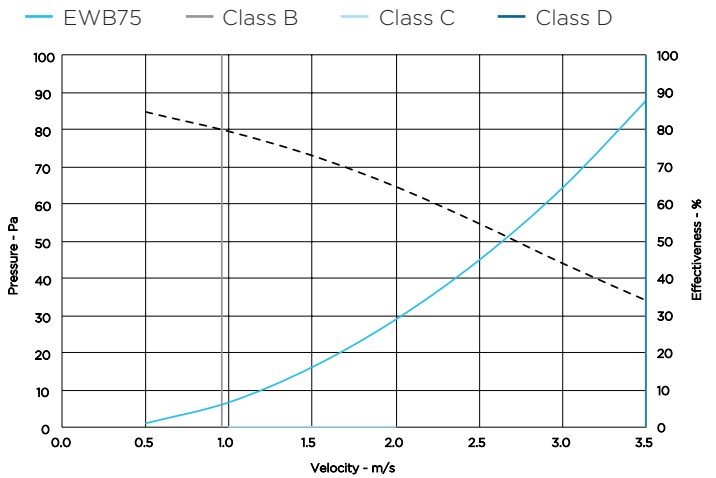
Size a EWB75 series louvre with bird guard suitable of handling 2m³/s, in intake mode with a pressure drop of not more than 29Pa.

$$V = \sqrt{\frac{29 \times 0.288^2}{0.6}} \quad V = 2.002 \text{ m/s}$$

$$\text{Louvre area (m}^2\text{)} = \frac{2}{2.002} = 0.999 \text{ m}^2$$

Size Louvre 1100mm (W)
Accordingly x 906mm (H)

Performance



Effectiveness	Face Velocity	
Class B	-	-
Class C	0.000 min	0.960 max
Class D	0.961 min	3.5 max

EWB75 Performance Table

Velocity m/s	0.5	1	1.5	2	2.5	3	3.5
Pressure Pa	1	7	16	29	45	64	88
Effectiveness %	84.6	79.5	73.0	64.7	54.7	44.0	34.1
Mean Ce	0.288						
Class	3						

*Louvre is fitted with a rear bird / vermin guard screen as standard.

Placing an order

Example Product Code					
EWB75	0300	0500	NOM	N	MF

Series	Size mm*		Dimensional Selection		Fixing		Finish	
	Width	Height						
EWB75	0100	0100	NOM	Nominal opening size	N	No fixing (standard)	MF	Mill Finished
	2000	2000						
					S	Countersunk flange holes	RAL	PPC RAL
					C	Neck fixing (fixing by others)		
					R	Rear fixing lugs		

*Sizes in 50mm increments
When ordering please state requirement from each column: Series, Size, Dimensional Selection, Fixing & Finish.