50mm Single Bank Weather Louvres

Description

For intake or extract air, the 45° blades are fixed at 50mm centres and have excellent integral rain defence features. Heavy duty construction allows large panels to be produced with unbroken blades.

Larger areas can be covered using multiple panel assemblies which will incorporate concealed rear mullions to give continuous blade appearance throughout.

Construction

From extruded aluminium sections, frame 3.0mm thick, blades 2.0mm thick. All frames to be of fully welded construction. Fitted as standard with rear galvanised steel bird mesh screen.

Size and Weight

From 600 x 600 to 3000 x 2000 in a single unit. Larger sizes are available in multiple units. Concealed rear mullions when width exceeds 1200mm.
Average weight: 12.5kg/m^2.
Average free area: 48%.

Rain Defence

The 50mm louvre system has been tested by BSRIA to European standard EN13030:2002 and achieves Class C - (80 - 94.9 % effectiveness).

Airflow Performance

Tested to EN13030:2002 the following aerodynamic coefficient is achieved : Intake ~ 0.253

Options

Matt black rear blanking panels
Insulated blanking panels (Thermal & Acoustic)
Mitred corners
Guards: Insect screen (Fixed or Removable), Security
Special shapes, Circular, triangular etc.

Product Specification

STATE QUANTITY, THE PRODUCT CODING AND THE SIZE WIDTH X HEIGHT
e.g. 1 Qty. W5050+0C 2500 x 1500

Frame Style	Panel Options	Mesh Options	Accessories
W5 Flanged Frame	0 Single Panel	5 Bird Mesh	0 None
W4 Recessed Frame	1 Multi-Panel Narrow Line Face Mullion	7 Insect Mesh	9 Drain Cill
W1 Reversed Angle Frame	2 Multi-Panel Concealed Rear Mullion	0 None	

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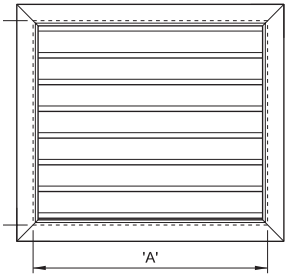
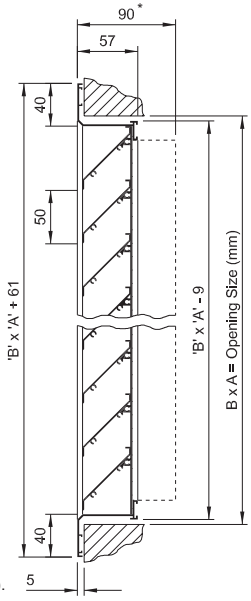
Fixings	Finish
0 None	D Mill Finish
1 Flange Holes	C PPC BS / RAL Colour
2 Rear Fixing Lugs C/W Tee Bolts	J Anolok Anodised

50mm Single Bank Weather Louvres

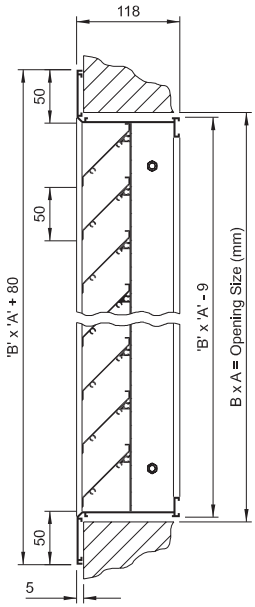


Size is expressed as 'A' x 'B' and relates to the nominal opening size into which the louvre is to be offered. A manufacturing size reduction tolerance is provided. Dimension 'A' (Width) should be stated first followed by dimension 'B' (Height).

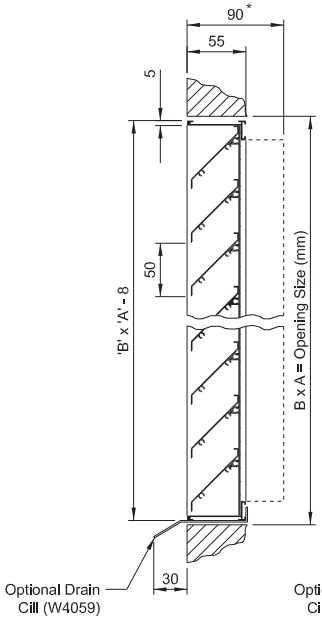
* For louvres of 1200mm wide and over, heavy duty blade support mullions are incorporated to the rear. Louvre depth increases to dimension (*).



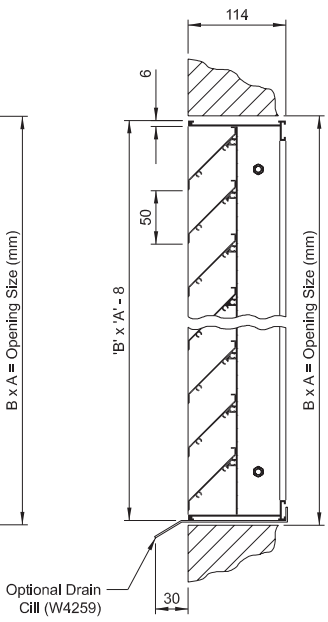
W5050
Flanged Frame



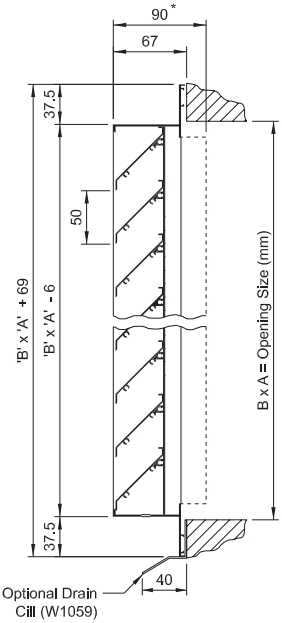
W5250
Flanged Frame:
Multi-Panel with continuous blade appearance



W4050
Recessed Frame



W4250
Recessed Frame:
Multi-Panel with continuous blade appearance



W1050
Reversed Angle Frame

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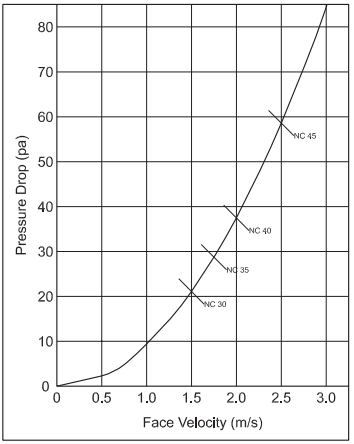
Technical Data 50mm Single Bank Weather Louvres

i) Data is based upon louvres fitted with a rear bird guard / debris screen.
With an insect screen fitted the free area will be reduced by approximately 15%.
ii) To minimise the risk of rain ingress, intake louvres should be selected against a max face velocity of 1.5M/s.
iii) Pressure drops are total, given in Pascals, and based on air density of 1.2Kg/M^3.
iv) NC ratings shown are given for general guidance only.

Selection Procedure

a) $$\frac{\text{Air Volume } (M^3/s)}{\text{Face Velocity } (M/s)} = \text{Louvre Face Area } (M^2)$$

b) Determine the air volume flow rate required to pass through the louvre (M^3/s).
c) Determine the maximum acceptable pressure drop (pa).
d) From the adjacent chart look up face velocity (M/s) against maximum pressure drop.
e) Divide air volume by face velocity to give required louvre face area.



Selection Example

a) Size a W5 (50mm blade pitch) louvre to intake 2.0M^3/s at 40 Pascals total pressure.
b) At 40 Pa, a 'Face Velocity' of 2.0M/s is given in the adjacent pressure drop graph; thus apply the formula as follows:

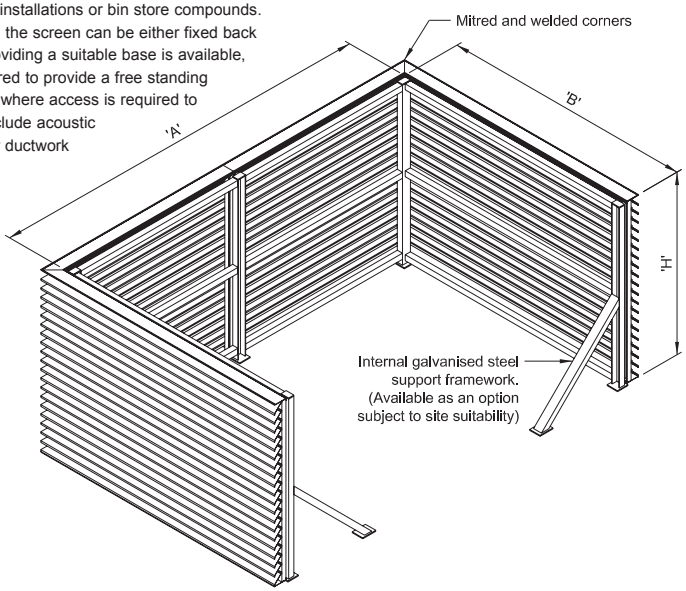
$$\frac{\text{2.0 Air Volume } (M^3/s)}{\text{2.0 Face Velocity } (M/s)} = 1.0M^2 \text{ Louvre Face Area}$$

c) Select a square or rectangular size to give the above face area,
e.g. **1100w. x 900h.**

Louvre Screening

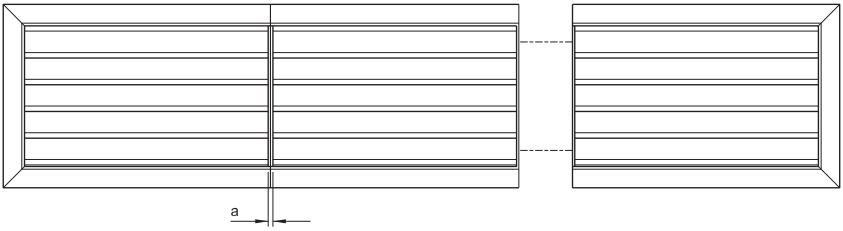
50mm & 75mm louvres can be manufactured to form visual screening enclosures for applications such as roof top plant installations or bin store compounds. Depending on the size and application the screen can be either fixed back to an existing building structure, or providing a suitable base is available, a steel support framework can be offered to provide a free standing enclosure. Doors can be incorporated where access is required to a fully enclosed area.Other options include acoustic blanking, special shapes, openings for ductwork penetrations etc.

Louvre screening is supplied in multiple site assembled panels therefore there are virtually no size or shape constraints. Contact GDL technical sales to discuss specific applications.

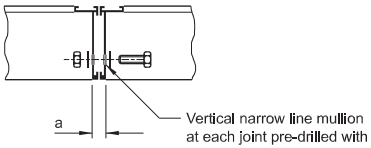


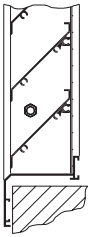
50mm & 75mm Weather Louvres Multi-Panel Options

1 Multi-Panel Narrow Line Face Mullion

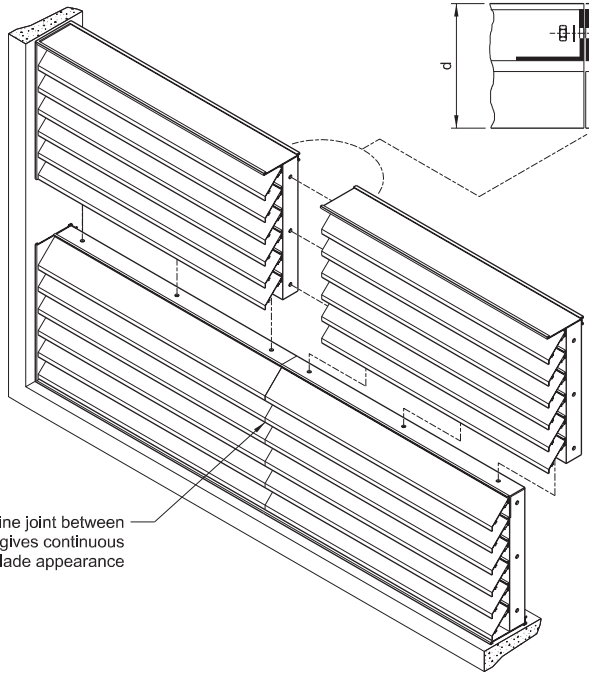


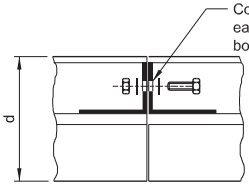
Type	Dim 'a' (mm)
W51	10
W41	10
W11	10
W71	14
W61	14

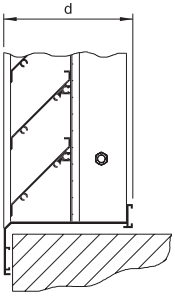




2 Multi-Panel Concealed Rear Mullion







Type	Dim 'd' (mm)
W52	118
W42	114
W12	90
W72	118
W62	114

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