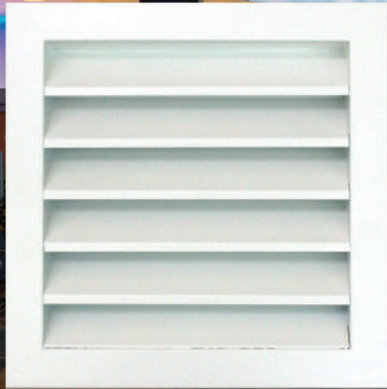




*External Louvre Grille*





### Introduction

Prudent Aire External Louvre Grille mainly used in exterior installations for air discharge or intake, as well as providing protection against water ingress.

With free area approximately 72%, the External Louvre Grille provides a combination of both water ingress protection as well as ventilation system at efficient levels. Vanes Vanes are also equipped with drip sill for diverting water away.

### CONSTRUCTIONS & MATERIALS

- Standard 72% free area
- 45° deflection configuration
- Vanes pitch of 40mm (Customizable)
- Grille sizing:
  - i) Minimum size: BS.150 x 150 mm
  - ii) Maximum size: BS.3000 x 1400 mm

#### Frames



Extruded Aluminium



Galvanized Steel (L < 1200 mm)



Galvanized Steel (L > 1200 mm)

#### Vaness



Extruded Aluminium

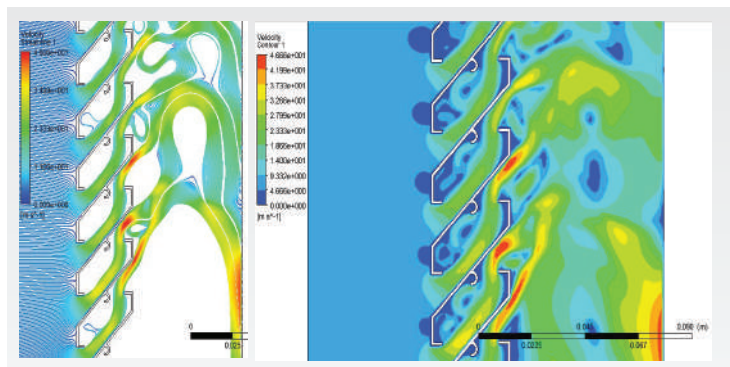
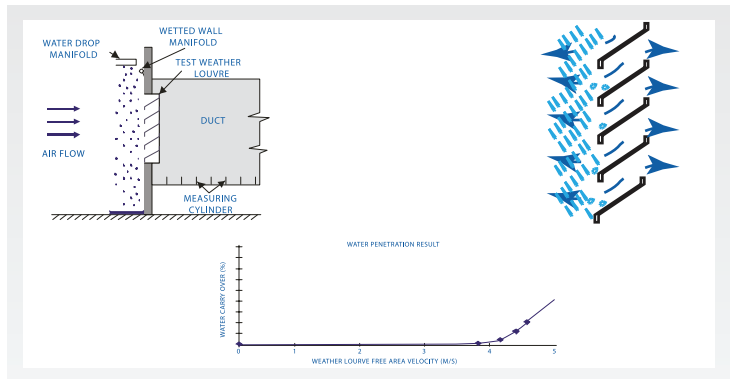


Galvanized Steel (L < 1200 mm)

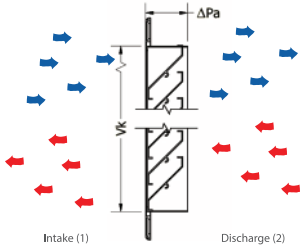


Galvanized Steel (L > 1200 mm)

#### Surface Finishing



**Intake / Discharge (Aluminium)**



\* For round grille, select according to similar grille neck area.

\* For pressure loss for intake and discharge flow, refer to Pa(1) and Pa(2) respectively.

\* The effective area given is to the best estimation & knowledge of Prudentaire's engineers at the point of entry.

Grille Neck Size, mm	Neck Area (Eff. Area) m <sup>2</sup>	Unit Volume Flowrate, m <sup>3</sup> /hr Unit Volume Flowrate, l/s	250	400	600	800	1000	2000	2500	3000	4000
			70	112	168	224	280	560	700	840	1120
200 x 300	0.06 (0.03)	Face Velocity, m/s	2.3	3.7	5.6	7.4	9.3	-	-	-	-
		Total Pressure Loss, Pa (1)	<10	27	60	>100	>100	-	-	-	-
		Total Pressure Loss, Pa (2)	<10	20	45	80	>100	-	-	-	-
200 x 400	0.08 (0.04)	Face Velocity, m/s	1.7	2.8	4.2	5.6	6.9	13.9	-	-	-
		Total Pressure Loss, Pa (1)	<10	16	35	60	95	>100	-	-	-
		Total Pressure Loss, Pa (2)	<10	11	25	45	70	>100	-	-	-
200 x 500	0.1 (0.06)	Face Velocity, m/s	1.2	1.9	2.8	3.7	4.6	9.3	-	-	-
		Total Pressure Loss, Pa (1)	<10	<10	16	27	45	>100	-	-	-
		Total Pressure Loss, Pa (2)	<10	<10	11	20	32	>100	-	-	-
200 x 600	0.12 (0.07)	Face Velocity, m/s	1.0	1.6	2.4	3.2	4.0	7.9	-	-	-
		Total Pressure Loss, Pa (1)	<10	<10	<10	22	30	>100	-	-	-
		Total Pressure Loss, Pa (2)	<10	<10	<10	17	22	90	-	-	-
200 x 800	0.16 (0.09)	Face Velocity, m/s	-	1.2	1.9	2.5	3.1	6.2	-	-	-
		Total Pressure Loss, Pa (1)	-	<10	<10	12	17	75	-	-	-
		Total Pressure Loss, Pa (2)	-	<10	<10	<10	15	58	-	-	-

300 x 300	0.09 (0.05)	Face Velocity, m/s	1.4	2.2	3.3	4.4	5.6	11.1	-	-	-
		Total Pressure Loss, Pa (1)	<10	<10	25	38	60	>100	-	-	-
		Total Pressure Loss, Pa (2)	<10	<10	19	27	45	>100	-	-	-
300 x 400	0.12 (0.07)	Face Velocity, m/s	1.0	1.6	2.4	3.2	4.0	7.9	-	-	-
		Total Pressure Loss, Pa (1)	<10	<10	<10	22	30	>100	-	-	-
		Total Pressure Loss, Pa (2)	<10	<10	<10	17	22	90	-	-	-
300 x 500	0.15 (0.09)	Face Velocity, m/s	-	1.2	1.9	2.5	3.1	6.2	-	-	-
		Total Pressure Loss, Pa (1)	-	<10	<10	12	17	75	-	-	-
		Total Pressure Loss, Pa (2)	-	<10	<10	<10	15	58	-	-	-
300 x 600	0.18 (0.10)	Face Velocity, m/s	-	1.1	1.7	2.2	2.8	5.6	6.9	8.3	-
		Total Pressure Loss, Pa (1)	-	<10	<10	<10	16	60	95	>100	-
		Total Pressure Loss, Pa (2)	-	<10	<10	<10	11	45	70	>100	-

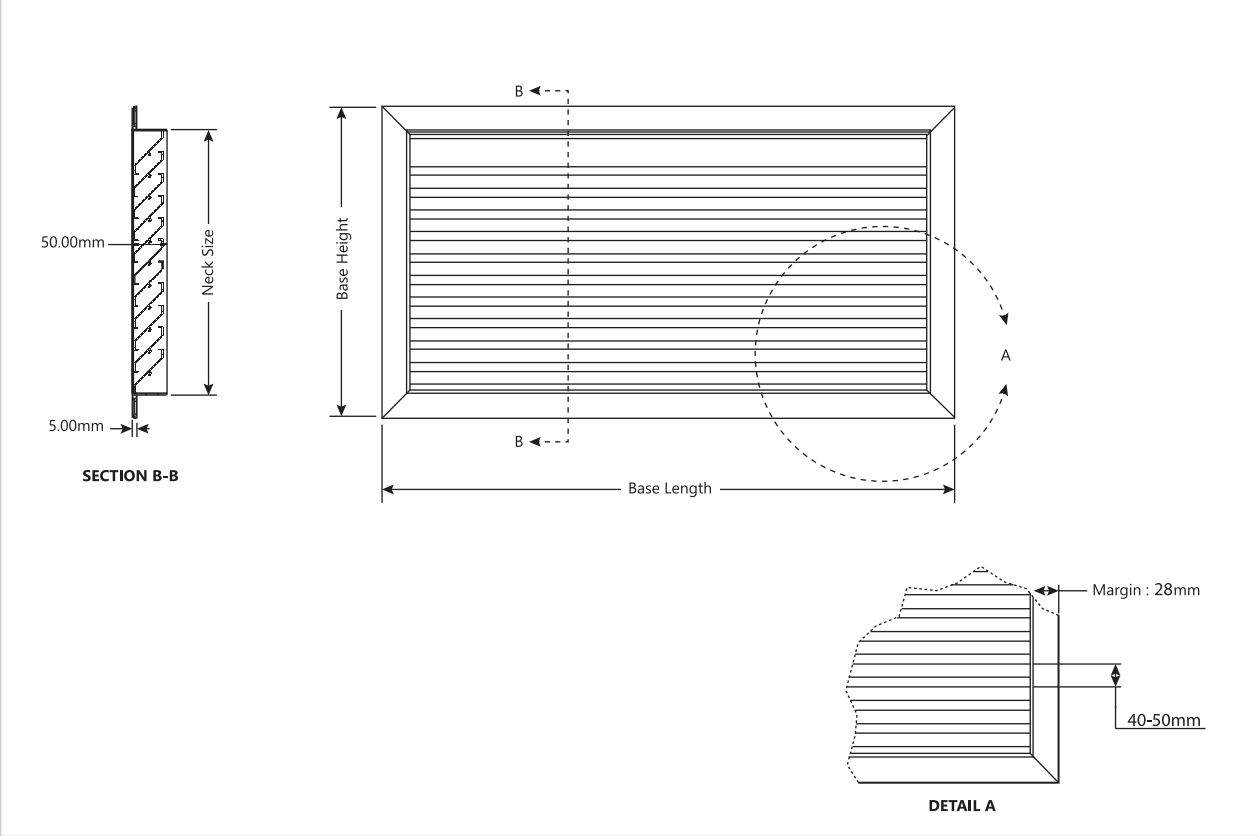
**Extract (Aluminium)**

300 x 800	0.24 (0.14)	Face Velocity, m/s	-	-	1.2	1.6	2.0	4.0	5.0	6.0	7.9
		Total Pressure Loss, Pa (1)	-	-	<10	<10	<10	30	50	70	>100
		Total Pressure Loss, Pa (2)	-	-	<10	<10	<10	22	35	55	90
300 x 1000	0.3 (0.18)	Face Velocity, m/s	-	-	-	1.2	1.5	3.0	3.9	4.6	6.2
		Total Pressure Loss, Pa (1)	-	-	-	<10	<10	15	27	45	75
		Total Pressure Loss, Pa (2)	-	-	-	<10	<10	14	20	35	58

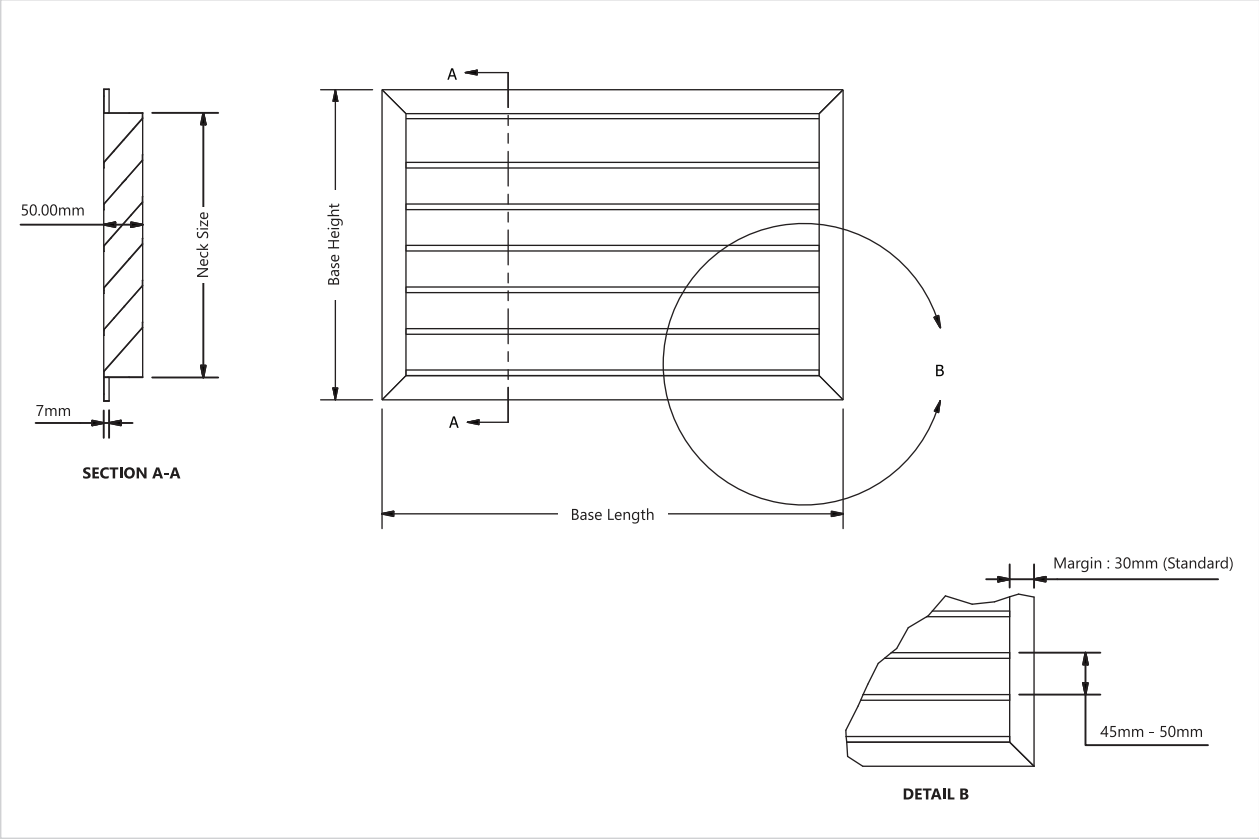
400 x 400	0.16 (0.09)	Face Velocity, m/s	-	1.2	1.9	2.5	3.1	6.2	-	-	-
		Total Pressure Loss, Pa (1)	-	<10	<10	12	17	75	-	-	-
		Total Pressure Loss, Pa (2)	-	<10	<10	<10	15	58	-	-	-
400 x 500	0.2 (0.12)	Face Velocity, m/s	-	-	1.4	1.9	2.3	4.6	5.8	6.9	9.3
		Total Pressure Loss, Pa (1)	-	-	<10	<10	<10	45	65	95	>100
		Total Pressure Loss, Pa (2)	-	-	<10	<10	<10	35	50	70	>100
400 x 600	0.24 (0.14)	Face Velocity, m/s	-	-	1.2	1.6	2.0	4.0	5.0	6.0	7.9
		Total Pressure Loss, Pa (1)	-	-	<10	<10	<10	30	50	70	>100
		Total Pressure Loss, Pa (2)	-	-	<10	<10	<10	22	35	55	90
400 x 800	0.32 (0.19)	Face Velocity, m/s	-	-	-	1.2	1.5	2.9	3.7	4.4	5.8
		Total Pressure Loss, Pa (1)	-	-	-	<10	<10	13	27	35	65
		Total Pressure Loss, Pa (2)	-	-	-	<10	<10	12	20	27	50
400 x 1000	0.4 (0.24)	Face Velocity, m/s	-	-	-	-	1.2	2.3	2.9	3.5	4.6
		Total Pressure Loss, Pa (1)	-	-	-	-	<10	<10	13	22	45
		Total Pressure Loss, Pa (2)	-	-	-	-	<10	<10	12	17	35

500 x 500	0.25 (0.15)	Face Velocity, m/s	-	-	1.1	1.5	1.9	3.8	4.6	5.6	7.4
		Total Pressure Loss, Pa (1)	-	-	<10	<10	<10	30	45	60	>100
		Total Pressure Loss, Pa (2)	-	-	<10	<10	<10	22	35	45	74
500 x 600	0.3 (0.18)	Face Velocity, m/s	-	-	-	1.2	1.5	3.0	3.9	4.6	6.2
		Total Pressure Loss, Pa (1)	-	-	-	<10	<10	15	27	45	75
		Total Pressure Loss, Pa (2)	-	-	-	<10	<10	14	20	35	58
500 x 800	0.4 (0.24)	Face Velocity, m/s	-	-	-	-	1.2	2.3	2.9	3.5	4.6
		Total Pressure Loss, Pa (1)	-	-	-	-	<10	<10	13	22	45
		Total Pressure Loss, Pa (2)	-	-	-	-	<10	<10	12	17	35
500 x 1000	0.5 (0.3)	Face Velocity, m/s	-	-	-	-	-	1.9	2.3	2.8	3.7
		Total Pressure Loss, Pa (1)	-	-	-	-	-	<10	<10	16	27
		Total Pressure Loss, Pa (2)	-	-	-	-	-	<10	<10	11	20
500 x 1200	0.6 (0.36)	Face Velocity, m/s	-	-	-	-	-	1.5	1.9	2.3	3.1
		Total Pressure Loss, Pa (1)	-	-	-	-	-	<10	<10	<10	18
		Total Pressure Loss, Pa (2)	-	-	-	-	-	<10	<10	<10	15

DIMENSIONS - ALUMINIUM



DIMENSIONS - GALVANIZED STEEL



## ALUMINIUM EXTERNAL LOUVER TECHNICAL SPECIFICATION

### Frame Construction

1. Frame to be in extruded aluminium. Frame thickness should be in minimum 1.2mm thick, unless otherwise stated.
2. The frame to be in 28mm from the neck height to the edge.
3. Frame height to be in 50mm.
4. The corner of the frame should be pressed with a 90° corner piece to ensure the frames are in 90°.
5. Removable core designs are available upon request.

### Vanes Construction

1. Vanes to be in extruded aluminium.
2. Vanes to be in 1.0mm thick. Edge of the vanes should with C hock to minimize water penetrate through the louver.
3. Vanes pitch to be in 40-50mm depends on size.

### Finishing

1. Finishing should be white powder coated, oven baked as standard RAL 9010 SG or HY-1001/A127. Others available upon request.
2. BeckryFluor is PVDF 70% acrylic 30% that meets AAMA 2605 with minimum 2 coats.  
For metallic colors minimum is 3 coats.

### Performance

1. Free area of the grille to be in 72%.
2. Vanes angle should be with 45° to minimize water penetrate through the louver.
3. External louver are designed to be install as wall mounted and the surface are normally outside of the building.

## GALVANIZED STEEL EXTERNAL LOUVER TECHNICAL SPECIFICATION

### Frame Construction

1. Frame to be in galvanized steel. Frame thickness should be in minimum 0.6mm thick, unless otherwise stated.
2. The frame to be in 30mm from the neck height to the edge.
3. Frame height to be in 50mm.
4. Removable core designs are available upon request.

### Vanes Construction

1. Vanes to be in galvanized steel.
2. Vanes to be in 0.6mm thick, unless otherwise stated.
3. Vanes pitch to be in 45-50mm depends on size.

### Finishing

1. Finishing should be white powder coated, oven baked as standard RAL 9010 SG or HY-1001/A127. Others available upon request.
2. BeckryFluor is PVDF 70% acrylic 30% that meets AAMA 2605 with minimum 2 coats.  
For metallic colors minimum is 3 coats.

### Performance

1. Free area of the grille to be in 74%.
2. Vanes angle should be with 45° to minimize water penetrate through the louver.
3. External louvers are designed to be install as wall mounted and the surface are normally outside of the building.

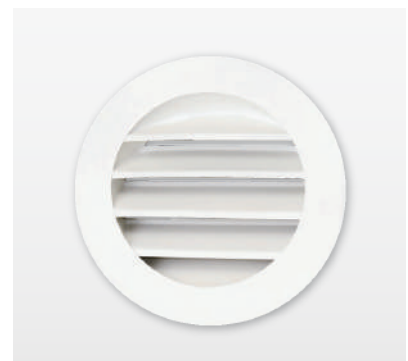
## AVAILABLE TYPES



Fixed - Galvanized Steel



Fixed - Aluminium



Round



# EL | External Louvre Grille

## Products Range

Grilles



Diffusers



Dampers



Fire & Smoke Protection



VAV



Others



Accessories



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