



**LG** *Louvre Grille*





## Introduction

Suitable for both wall and ceiling installation, Prudent Aire Louvre Grille are designed for return, exhaust and intake applications.

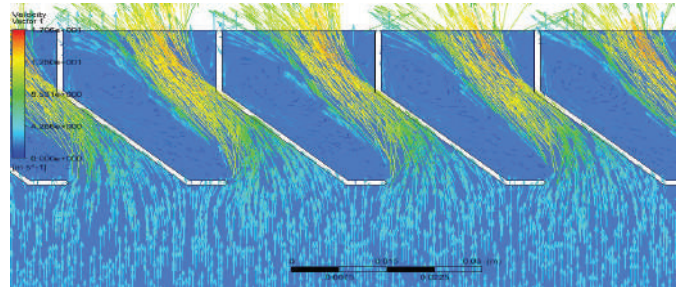
With free area of 62% for standard issued size, Prudent Aire Louvre Grille are able to provide high aesthetic value without compromising primary product functions significantly.

Come in both fixed and removable configurations, the Prudent Aire Louvre Grille are also available in round shape face profile to suit customer's varying site requirements.

Removable Type

## CONSTRUCTIONS & MATERIALS

- Standard 62% free area
- Highly customizable effective area
- Vanes pitch of 25mm (Alu) & 45mm (G.I.)
- Grille sizing:
  - i) Minimum size: BS.150mm x 150mm
  - ii) Maximum size: BS.3000mm x 1400mm
  - ii) For Length > 600mm, grille supplied in sections



### Frames Construction



Extruded Aluminium



Galvanized Steel



Stainless Steel (Upon request)

### Vanes Construction



Extruded Aluminium



Galvanized Steel



Stainless Steel (Upon request)

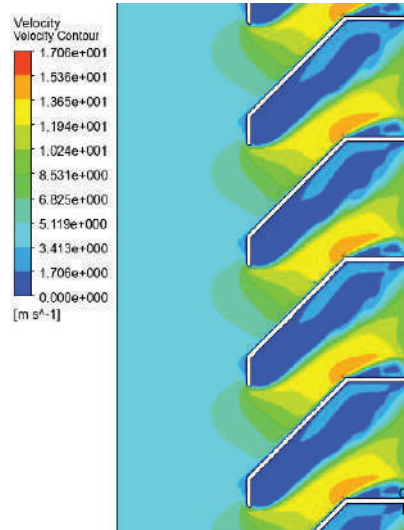
### Surface Finish



White (Matt) Customizable Color

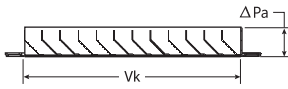


White (Matt)



# TECHNICAL PERFORMANCE DATA

## Extract



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	NR25	NR35	NR40	NR50	800	1000	2000	2500	3000	4000
			250 70	400 112	600 168	800 224	1000 280	2000 560	2500 700	3000 840	4000 1120	
100 x 400	0.04 (0.012)	Face Velocity, m/s	5.8	9.3	13.9	-	-	-	-	-	-	-
		Total Pressure Loss, Pa	17	40	90	-	-	-	-	-	-	-
		Noise Rating (NR)	30	46	>50	-	-	-	-	-	-	-
100 x 500	0.05 (0.015)	Face Velocity, m/s	4.6	7.4	11.1	-	-	-	-	-	-	-
		Total Pressure Loss, Pa	10	25	55	-	-	-	-	-	-	-
		Noise Rating (NR)	23	37	53	-	-	-	-	-	-	-

\* For supply flow, the effective area will be 20% more.

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

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

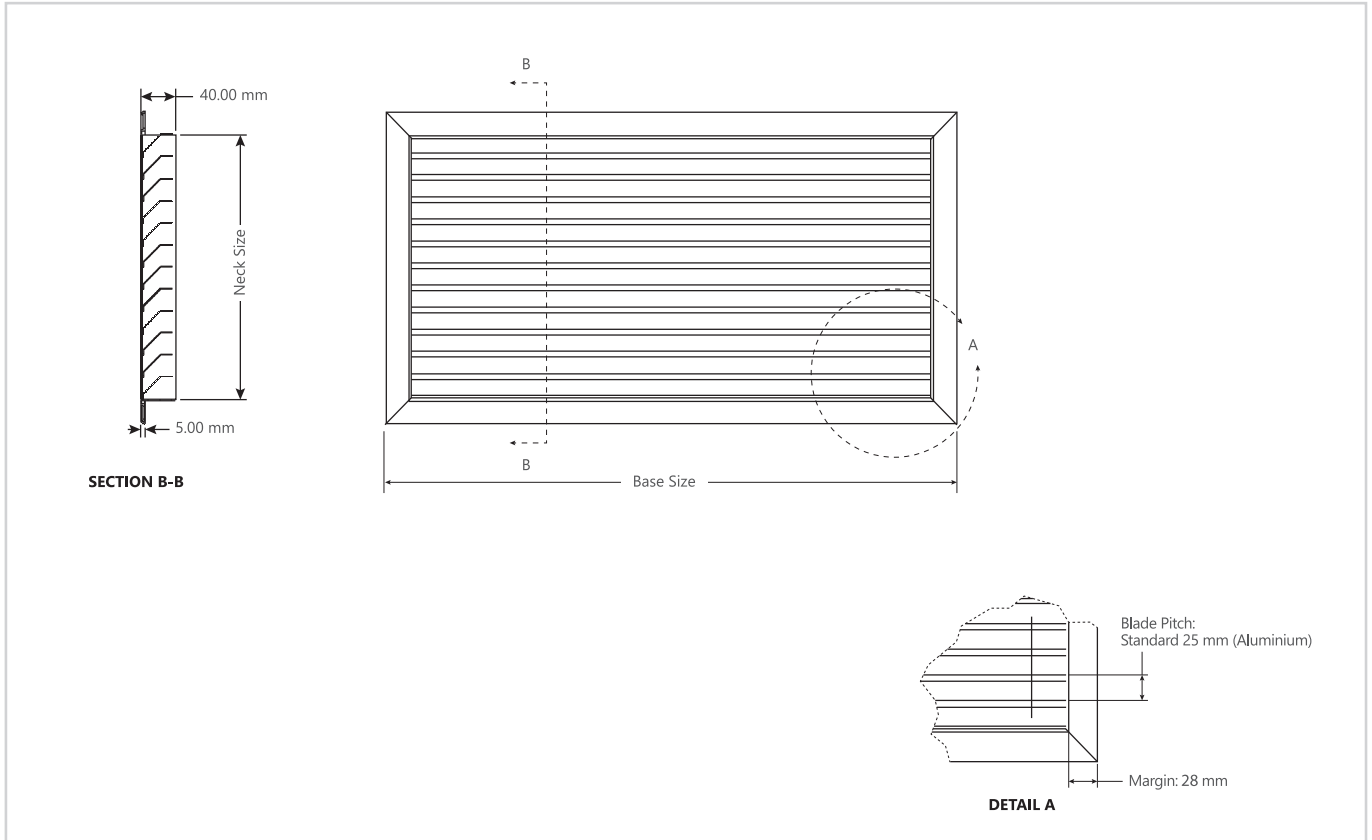
Grille Neck Size, mm	Neck Area (Eff. Area) m <sup>2</sup>	Unit Volume Flowrate, m <sup>3</sup> /hr Unit Volume Flowrate, l/s	NR25	NR35	NR40	NR50	800	1000	2000	2500	3000	4000
			250 70	400 112	600 168	800 224	1000 280	2000 560	2500 700	3000 840	4000 1120	
150 x 250	0.0375 (0.012)	Face Velocity, m/s	5.8	9.3	13.9	-	-	-	-	-	-	-
		Total Pressure Loss, Pa	17	40	90	-	-	-	-	-	-	-
		Noise Rating (NR)	30	46	>50	-	-	-	-	-	-	-
150 x 300	0.045 (0.015)	Face Velocity, m/s	4.6	7.4	11.1	-	-	-	-	-	-	-
		Total Pressure Loss, Pa	10	25	55	-	-	-	-	-	-	-
		Noise Rating (NR)	23	37	53	-	-	-	-	-	-	-
150 x 400	0.06 (0.020)	Face Velocity, m/s	3.5	5.6	11.1	11.1	-	-	-	-	-	-
		Total Pressure Loss, Pa	5.5	15	55	55	-	-	-	-	-	-
		Noise Rating (NR)	<20	30	44	>50	-	-	-	-	-	-
150 x 500	0.075 (0.025)	Face Velocity, m/s	2.8	4.4	6.7	8.9	11.1	-	-	-	-	-
		Total Pressure Loss, Pa	5.0	9.0	17.5	35	55	-	-	-	-	-
		Noise Rating (NR)	<20	24	36	47	>50	-	-	-	-	-
150 x 600	0.09 (0.029)	Face Velocity, m/s	-	3.8	5.7	7.7	9.6	-	-	-	-	-
		Total Pressure Loss, Pa	-	7.0	15	27	45	-	-	-	-	-
		Noise Rating (NR)	-	<20	31	43	51	-	-	-	-	-
150 x 800	0.12 (0.041)	Face Velocity, m/s	-	-	4.1	5.4	6.8	13.6	-	-	-	-
		Total Pressure Loss, Pa	-	-	7.5	13	18	90	-	-	-	-
		Noise Rating (NR)	-	-	21	33	40	>50	-	-	-	-

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	NR25	NR35	NR40	NR50	800	1000	2000	2500	3000	4000
			250 70	400 112	600 168	800 224	1000 280	2000 560	2500 700	3000 840	4000 1120	
200 x 250	0.05 (0.018)	Face Velocity, m/s	3.9	6.2	9.3	12.3	-	-	-	-	-	-
		Total Pressure Loss, Pa	7.0	17.5	40	70	-	-	-	-	-	-
		Noise Rating (NR)	<20	33	46	>50	-	-	-	-	-	-
200 x 300	0.06 (0.022)	Face Velocity, m/s	3.2	5.1	7.6	10.1	12.6	-	-	-	-	-
		Total Pressure Loss, Pa	4.5	13	26	47	7	-	-	-	-	-
		Noise Rating (NR)	<20	26	40	50	>50	-	-	-	-	-
200 x 400	0.08 (0.029)	Face Velocity, m/s	-	3.8	5.7	7.7	9.6	-	-	-	-	-
		Total Pressure Loss, Pa	-	7.0	17	27	45	-	-	-	-	-
		Noise Rating (NR)	-	<20	32	43	52	-	-	-	-	-
200 x 500	0.1 (0.035)	Face Velocity, m/s	-	3.2	4.8	6.3	7.9	15.9	-	-	-	-
		Total Pressure Loss, Pa	-	4.5	12.5	17.5	30	>80	-	-	-	-
		Noise Rating (NR)	-	<20	25	37	46	>50	-	-	-	-
200 x 600	0.12 (0.041)	Face Velocity, m/s	-	-	4.1	5.4	6.8	13.6	-	-	-	-
		Total Pressure Loss, Pa	-	-	7.5	13	18	90	-	-	-	-
		Noise Rating (NR)	-	-	20	33	40	>50	-	-	-	-
200 x 800	0.16 (0.055)	Face Velocity, m/s	-	-	3.0	4.0	5.1	10.1	-	-	-	-
		Total Pressure Loss, Pa	-	-	4.0	7.5	13	47	-	-	-	-
		Noise Rating (NR)	-	-	<20	24	33	>50	-	-	-	-
200 x 1000	0.2 (0.071)	Face Velocity, m/s	-	-	-	3.1	3.9	7.8	-	-	-	-
		Total Pressure Loss, Pa	-	-	-	4.4	7.5	27	-	-	-	-
		Noise Rating (NR)	-	-	-	<20	24	47	-	-	-	-

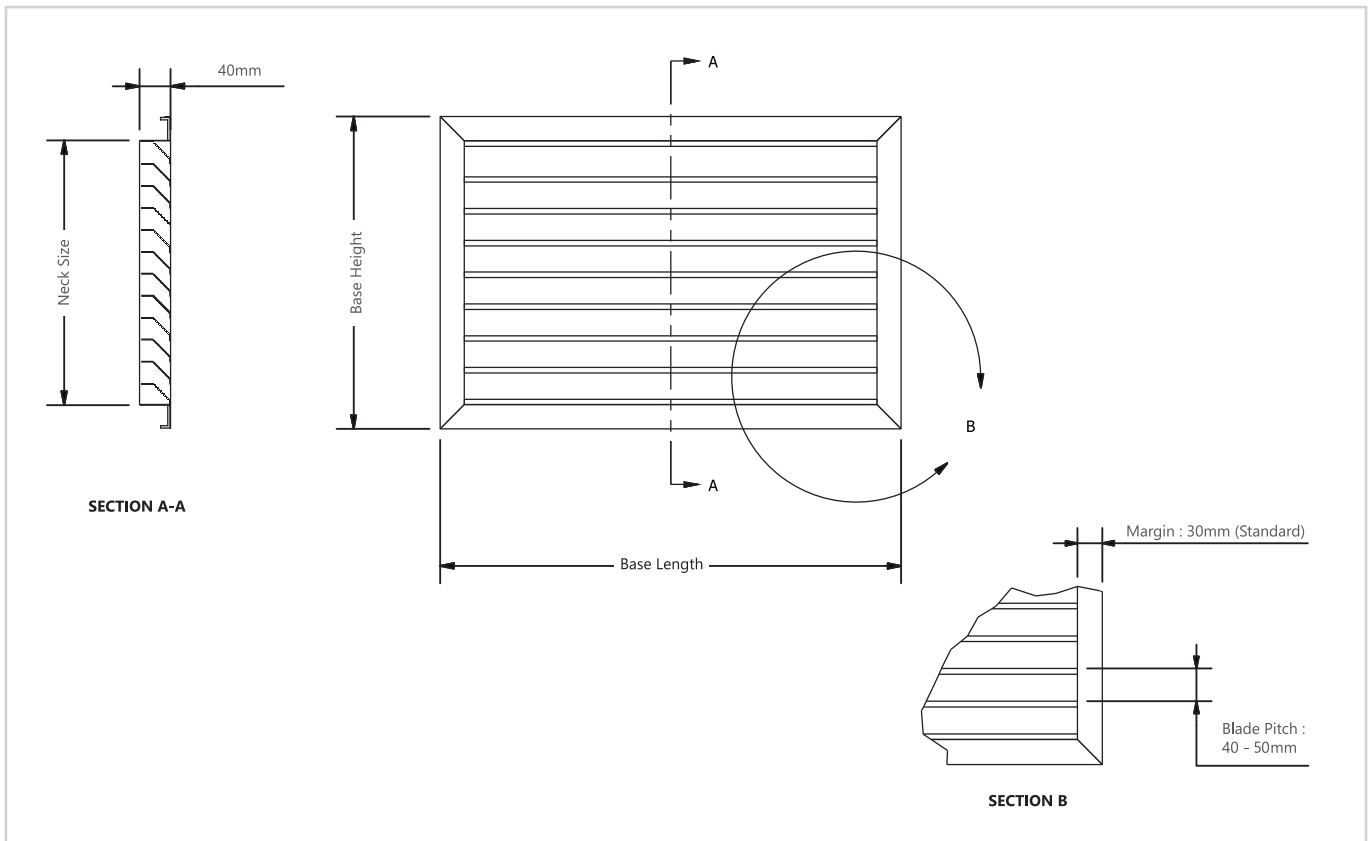
Grille Neck Size, mm	Neck Area (Eff. Area) m <sup>2</sup>	Unit Volume Flowrate, m <sup>3</sup> /hr Unit Volume Flowrate, l/s	NR25	NR35	NR40	NR50	800	1000	2000	2500	3000	4000
			250 70	400 112	600 168	800 224	1000 280	2000 560	2500 700	3000 840	4000 1120	
300 x 300	0.09 (0.033)	Face Velocity, m/s	-	3.4	5.1	6.7	8.4	16.8	-	-	-	-
		Total Pressure Loss, Pa	-	5.5	13	20	35	>80	-	-	-	-
		Noise Rating (NR)	-	<20	27	39	47	>50	-	-	-	-
300 x 400	0.12 (0.044)	Face Velocity, m/s	-	-	3.8	5.1	6.3	12.6	-	-	-	-
		Total Pressure Loss, Pa	-	-	7.0	13	17.5	70	-	-	-	-
		Noise Rating (NR)	-	-	<20	30	37	>50	-	-	-	-
300 x 500	0.15 (0.055)	Face Velocity, m/s	-	-	3.0	4.0	5.1	10.1	-	-	-	-
		Total Pressure Loss, Pa	-	-	4.0	7.5	13	47	-	-	-	-
		Noise Rating (NR)	-	-	<20	24	33	>50	-	-	-	-
300 x 600	0.18 (0.065)	Face Velocity, m/s	-	-	-	3.4	4.2	8.5	10.7	-	-	-
		Total Pressure Loss, Pa	-	-	-	5.5	8.0	35	55	-	-	-
		Noise Rating (NR)	-	-	-	21	27	50	>50	-	-	-
300 x 800	0.24 (0.087)	Face Velocity, m/s	-	-	-	-	3.2	6.4	8.0	9.6	-	-
		Total Pressure Loss, Pa	-	-	-	-	5.0	18	30	45	-	-
		Noise Rating (NR)	-	-	-	-	20	42	50	>50	-	-
300 x 1000	0.3 (0.110)	Face Velocity, m/s	-	-	-	-	2.5	5.1	6.3	7.6	10.1	-
		Total Pressure Loss, Pa	-	-	-	-	<4	13	17.5	27.5	47	-
		Noise Rating (NR)	-	-	-	-	<20	34	40	46	>50	-

544 x 544	0.296 (0.107)	Face Velocity, m/s Total Pressure Loss, Pa Noise Rating (NR)	-	-	-	-	2.6 3.7 <20	5.2 15 34	6.5 24 42	7.8 40 47	10.3 60 >50
1144 x 1144	1.309 (0.471)	Face Velocity, m/s Total Pressure Loss, Pa Noise Rating (NR)	-	-	-	-	-	-	-	-	2.4 3.1 <20

**DIMENSIONS - ALUMINIUM**



**DIMENSIONS - GALVANIZED STEEL**



## ALUMINIUM LOUVRE GRILLE TECHNICAL SPECIFICATION

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### Frame Construction

1. Frame to be in extruded aluminium. Frame thickness should be in minimum 1.1mm thick, unless otherwise stated.
2. The frame to be in 28mm from the neck height to the edge.
3. Frame height to be in 40mm.
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 0.9 mm thick.
3. Vanes pitch to be in 25 mm

### Finishing

1. White powder coated, oven baked as standard. RAL 9010 SG or HY 1001/A127. Others available upon request.

### Performance

1. Free area of the grille to be in 62%.
2. Vanes angle should be with 45°.
3. Louvre Grilles are designed to be installed as wall mounted as an exhaust or return opening.

## GALVANIZED STEEL EXTERNAL LOUVRE TECHNICAL SPECIFICATION

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### 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 40mm.
4. Removable core designs are available upon request.

### Vanes Construction

1. Vanes to be in galvanized steel.
2. Vanes to be in 0.5mm thick, unless otherwise stated.
3. Vanes pitch to be in 40-50mm depends on size.

### Finishing

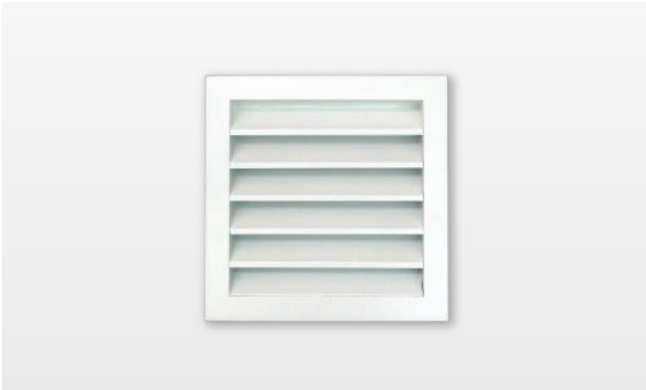
1. White powder coated, oven baked as standard. RAL 9010 SG or HY 1001/A127. Others available upon request.

### Performance

1. Free area of the grille to be in 78%.
2. Vanes angle should be with 45°.
3. Louvre Grilles are designed to be installed as wall mounted as an exhaust or return opening.

## AVAILABLE TYPES

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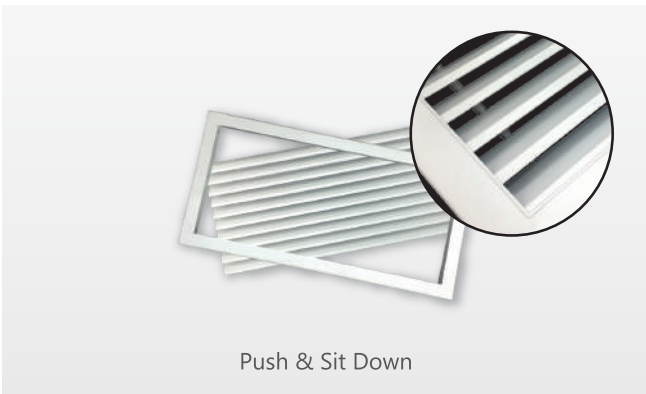


**Fixed**



Double Margin

**Removable Type**



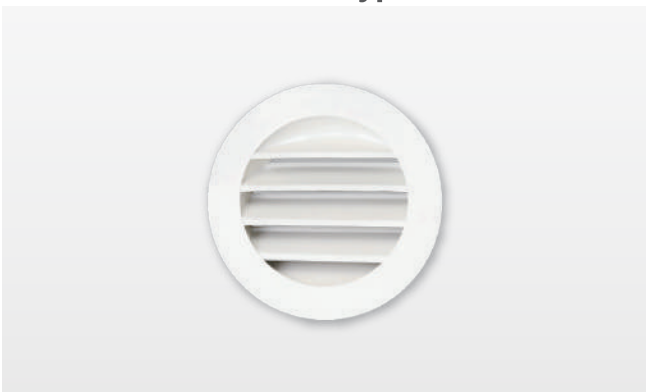
Push & Sit Down

**Removable Type (AL)**



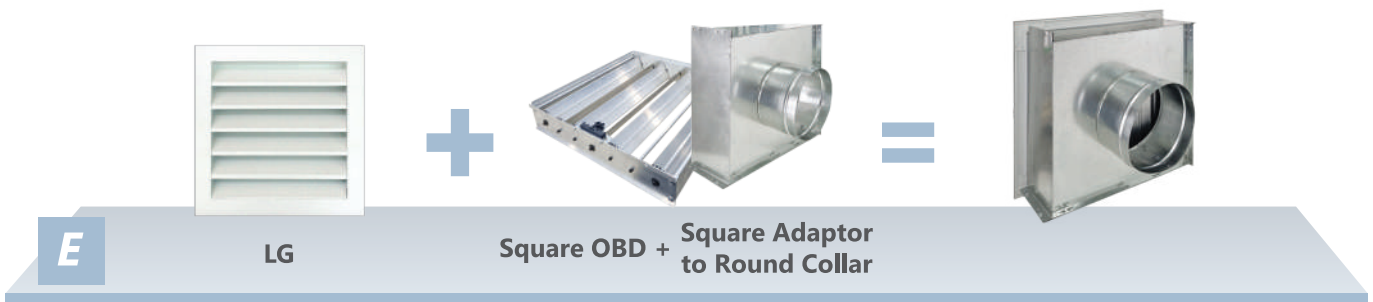
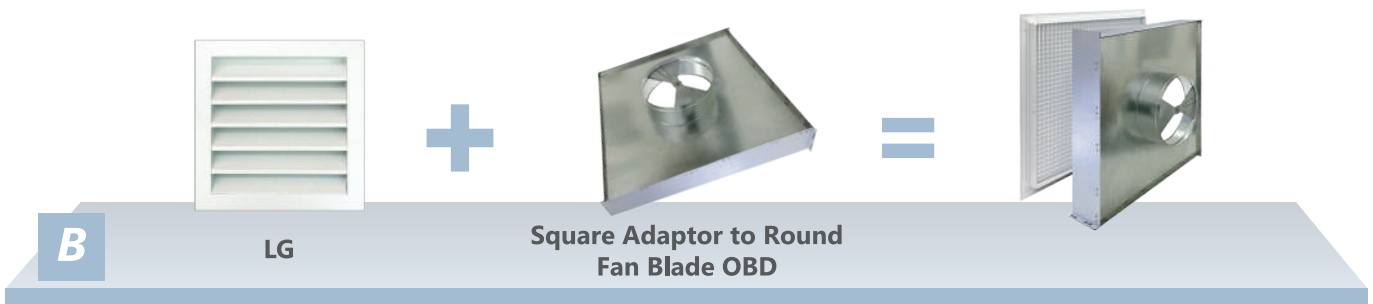
Push & Sit Down

**Removable Type (GI)**

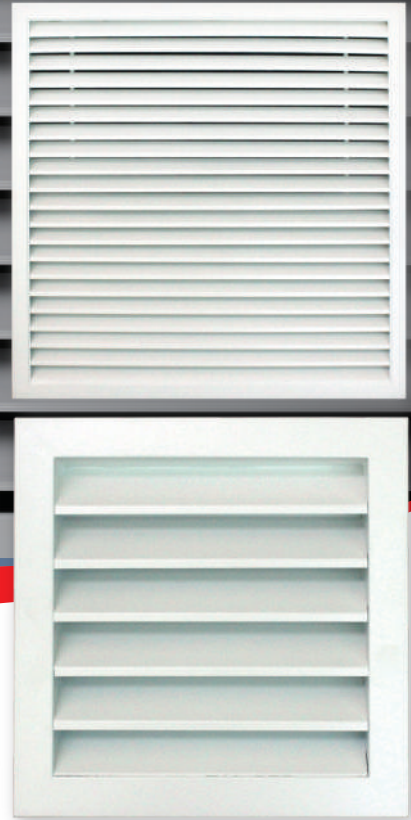


**Round**








## GRILLE + ACCESSORIES COMBINATION



# LG | Louvre Grille



## Products Range

- Grilles 
- Diffusers 
- Dampers 
- Fire & Smoke Protection 
- VAV 
- Others 
- Accessories 



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