

WEATHER LOUVER

AEROSYS weather Louvers is designed with weatherproof external coating for air inlets and discharge openings, suitable for most external walls and screening applications. The WL is composed of frame and horizontal blade assembly, manufactured from high quality extruded aluminum* profiles. Blades are fixed rigidly to the main frame by rivets and sets at angle of 45/35 deg to the horizontal with 40/60/80mm spacing to incline downward to protect against rain water. We manufactured them in accordance to AMCA standards for pressure drop & efficiency. We can also supply them with bird screen & aluminum filter for fresh air intake. Weather louvers are composed of frame and horizontal blade assembly, manufactured from high quality extruded aluminum profiles* / Galvanized steel sheet / Stainless steel with the advantages of corrosion resistance and rigidity. These Weather louvers constructions conforms the standards of ADC 1602 and DW142 class C.



How to Order?

Item	Family	Model	Specification		Material		Type	Construction
			Frame	Blade	Frame	Blade		
WL	LOUVER	WL – 1A	Rectangular shaped	40*/60/80/100	AL*, GI, SS.	AL*, GI, SS.	Wall Mounted	Light / Medium / Heavy duty
		WL – 1B	Rectangular shaped	40*/60/80/100	AL*, GI, SS.	AL*, GI, SS.	Duct Mounted	Light / Medium / Heavy duty
		WL – 1C	Rectangular shaped	40*/60/80/100	AL*, GI, SS.	AL*, GI, SS.	Flush Mounted	Light / Medium / Heavy duty

* - Standard construction.

Standard Construction (AERO-WL-1A/B/C):

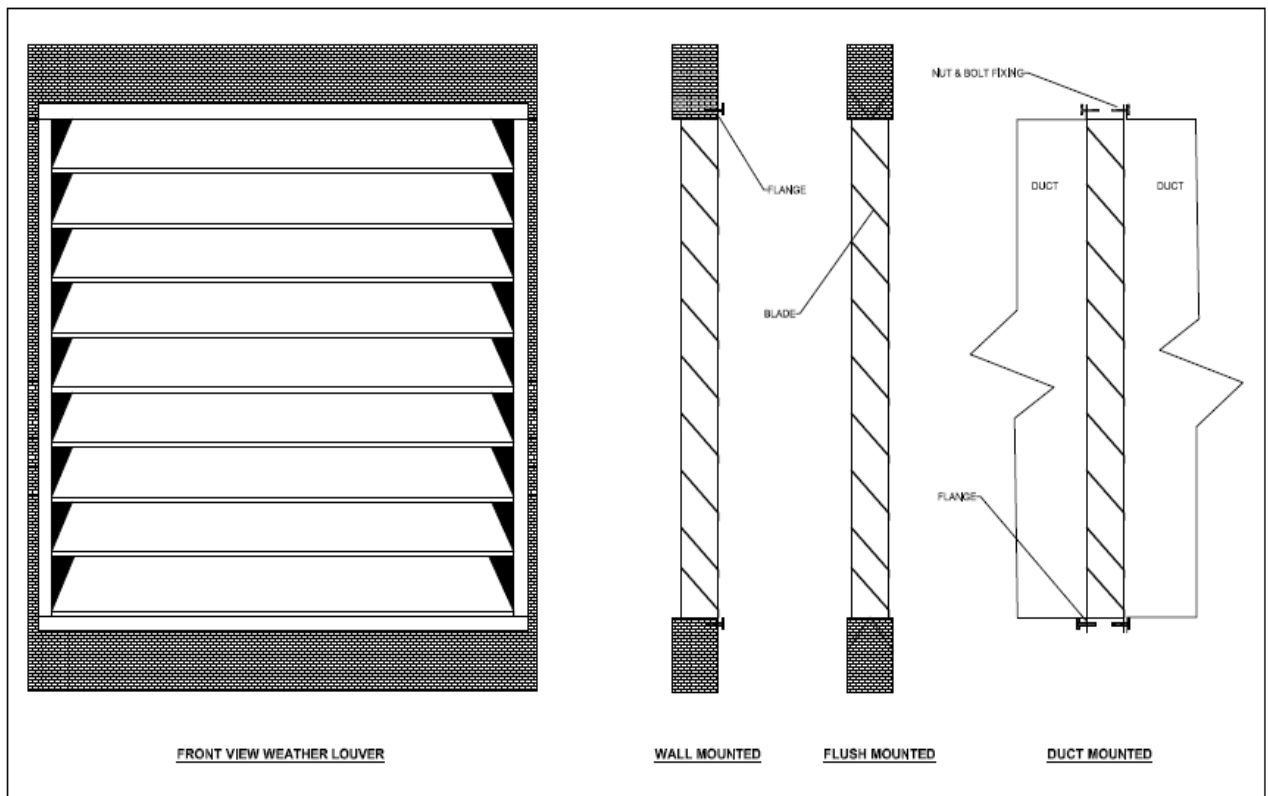
☐	Frame	–	18* gauge (1.2* mm) thick Extruded aluminum profile with 30 mm flange.
☐	Blade	–	20* gauge (1.0* mm) thick Extruded aluminum profile.
☐	Blade orientation	–	Horizontal.
☐	Blade Pitch	–	40*/60/80 mm as per the louver depth and blade size.
☐	Screen	–	12 X 12 X 1 mm GI wire mesh.
☐	Finish	–	Mill Finish* Aluminum is standard supply.
☐	Min. Size	–	6" x 6" (150 x 150 mm).
☐	Max. Size	–	48" x 48" (1200 x 1200 mm).
☐	Filter	–	Intake louver* with ½"/1" Filter or Extract louver without filter.

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Optional Construction (AERO-WL-1A/B/C):

?	Frame	–	Galvanized steel sheet / Stainless steel sheet.
?	Blade	–	Galvanized steel sheet / Stainless steel sheet.
?	Bladetype	–	100 mm fixed blade for heavy duty application.
?	Finish	–	Powder coated as per client request.
?	Mounting frame	–	Mounting frame angleflange.
?	Damper	–	Damper Assembly (BD - Balancing Damper / CD - Control Damper).
?	Bigger Sizes	–	More than (60" X 60") 1500 X 1500 mm in multi sections.
?	Construction	–	Heavy gauge thick of 3 mm thick Aluminum profile frame & 2 mm thick Aluminum profile blade.

Constructional and Dimensional Details:



Performance details:

Selection example:

$$\text{Given Air flow (Q)} = \text{Free Area (A}_k\text{)} \times \text{Free Velocity (V}_k\text{)}$$

$$1000 \text{ m}^3/\text{sec} = \text{Corresponding free area from given table} \times V_k$$

$$A_k = \frac{1000 \text{ m}^3/\text{sec}}{V_k}$$

This will give you Free Area velocity of the Air.

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Table for Free Area (A_k):

Free Area A_k in Sqm for AERO- WL-1W/D/F											
W/H (mm)	300	450	600	750	900	1050	1200	1500	1800	2100	2400
300	0.011	0.022	0.033	0.045	0.056	0.067	0.079	0.102	0.124	0.147	0.171
450	0.022	0.046	0.069	0.094	0.117	0.141	0.165	0.212	0.260	0.307	0.354
600	0.033	0.069	0.106	0.142	0.178	0.215	0.250	0.322	0.395	0.466	0.539
750	0.045	0.094	0.142	0.190	0.239	0.287	0.336	0.432	0.529	0.627	0.724
900	0.056	0.117	0.178	0.239	0.299	0.361	0.421	0.543	0.664	0.787	0.908
1050	0.067	0.141	0.215	0.287	0.361	0.433	0.507	0.653	0.800	0.946	1.092
1200	0.079	0.165	0.250	0.336	0.421	0.507	0.592	0.763	0.935	1.106	1.277
1500	0.102	0.212	0.322	0.432	0.543	0.653	0.763	0.983	1.205	1.425	1.646
1800	0.124	0.260	0.395	0.529	0.664	0.800	0.935	1.205	1.474	1.745	2.014
2100	0.147	0.307	0.466	0.627	0.787	0.946	1.106	1.425	1.745	2.064	2.383
2400	0.171	0.354	0.539	0.724	0.908	1.092	1.277	1.646	2.014	2.383	2.752

Pressure drop Vs Air Velocity Graph:

