

DVAC

DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Fixed Blade Louvers Catalogue



Rectangular

Type FBL



DVAC Certifies that the **Fixed Blade Louver Model FBL** shown herein is licensed to bear the **AMCA Seal**. The Ratings are based on tests and procedures performed in accordance with **AMCA Publication 511** and comply with the requirements of the **AMCA Certified Ratings Program**. The **AMCA Certified Rating Seal** applies to **Water Penetration and Air Performance Ratings**.





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Model FBL - Rectangular

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- Introduction
- Materials
- Construction

1- INTRODUCTION

Fixed Blade Louvers are designed to provide Air Intake and Air Exhaust Openings in building exterior walls to protect against the direct wind driven rain. **DVAC Fixed Blade Louvers** are licensed to bear the **AMCA Seal** for the **Water Penetration** and **Air Performance** tests.

2- MATERIALS

- **Casing:** Shall be made of Extruded Aluminum Mill Finish complying with ASTM B209, Alloy 3003, Temper H14, 14 Gauge (2.0mm Thickness)
- **Blades:** Shall be made of Extruded Aluminum Mill Finish complying with ASTM B209, Alloy 3003, Temper H14, 16 Gauge (1.5mm Thickness) Angle Blade 45° (Z shape)

Free Area: 30% with Frame

To Calculate the Air flow Rate:

$$L/S = \frac{0.37 \times W(\text{mm}) \times H(\text{mm}) \times \text{Face Velocity m/s}}{1000}$$

3- CONSTRUCTION

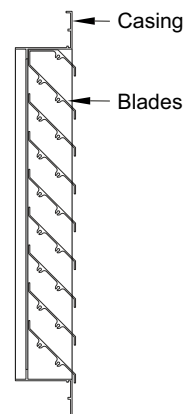
DVAC provides a high quality of louvers for external walls, Standard Color RAL 9010. Weather resistance structure with blade inclined at an angle of 45° to protect against rain water penetration.

DVAC Fixed Blade Louvers are composed of casing and horizontal blade assembly, fabricated with a high quality of Aluminum with the advantage of durability & anti-corrosion.

The blades are constructed maximum at 45 degrees to have the highest free area and provide minimum resistance to airflow.

Optional:

- **Galvanized Steel:** Complying with ASTM A653, Having G90 Coating Designation, 14 Gauge (2.0mm Thickness)
- **Stainless Steel** : Complying with ASTM A240/A430 Grade 304, 304L, 316 & 316L, 18 Gauge (1.2mm Thickness)
- **Powder Coated** : RAL 9010 (Standard) Other Coating Colors can be done upon request.
- **Bird Screen** : Shall be made of Hot Dip Galvanized 12x12x1.0mm

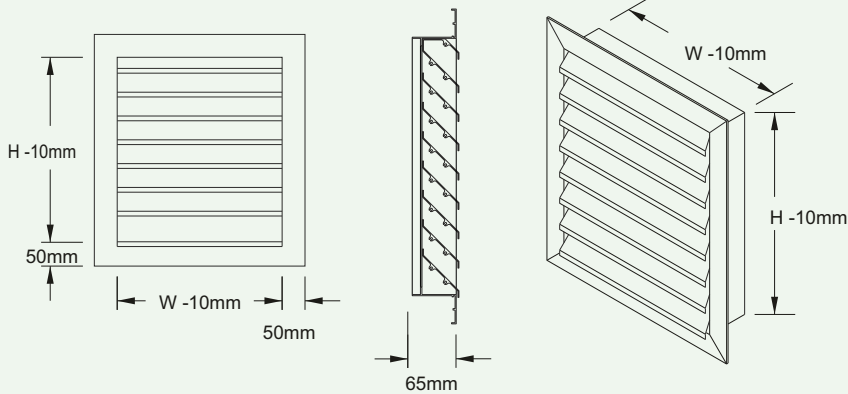


- Wall Mounted
- Duct Mounted

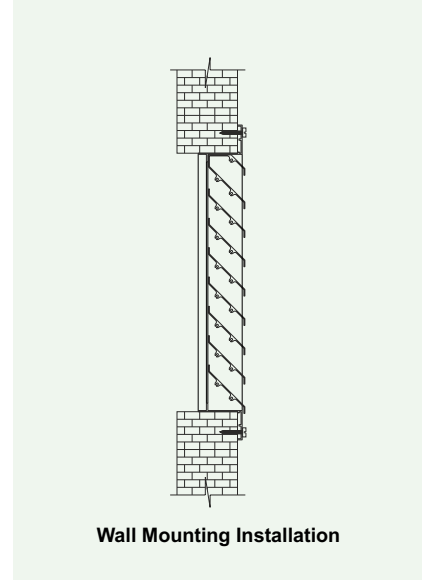
A. FIXED BLADE LOUVER - WALL MOUNTED

Wall Mounted (Standard)

Code: **AL-FBL-W** is fabricated of four pieces Extruded Aluminum.



AL-FBL-W is to be installed on face the wall.

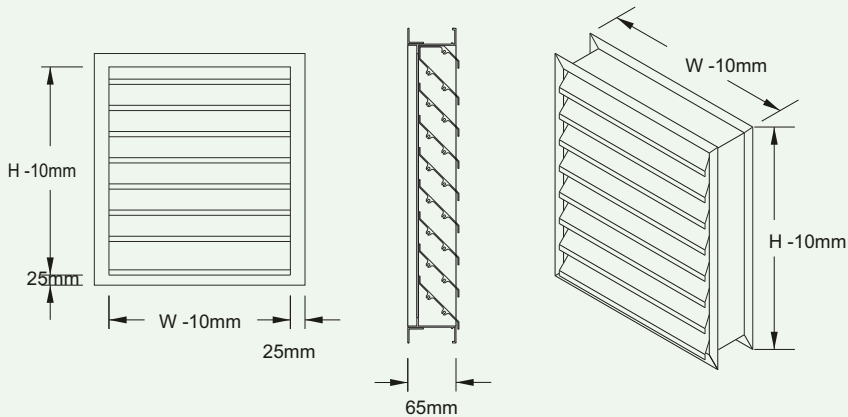


Wall Mounting Installation

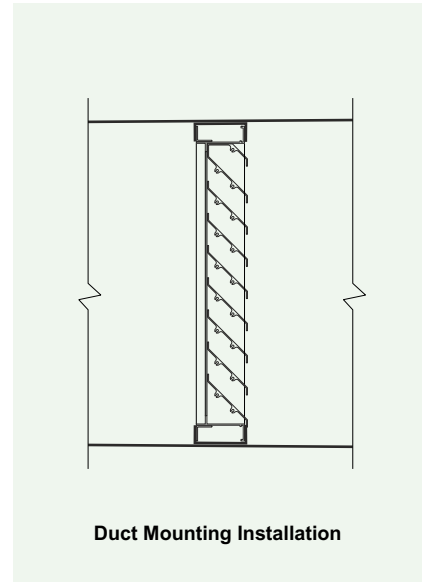
B. FIXED BLADE LOUVER - DUCT MOUNTED

Duct Mounting (Optional)

Code: **AL-FBL-D** is fabricated of four pieces Extruded Aluminum.



AL-FBL-D is to be installed on the duct



Duct Mounting Installation

Size Limitations:

- **Minimum Size:** 6"x6" (150x150mm)
- **Maximum Size:** Single section: 88"x88" (2200x2200mm)
Multiple sections: Unlimited

Ordering example:

AL FBL-W P 300x300
 Material _____
 Code _____
 Powder Coated _____
 Width x Height _____

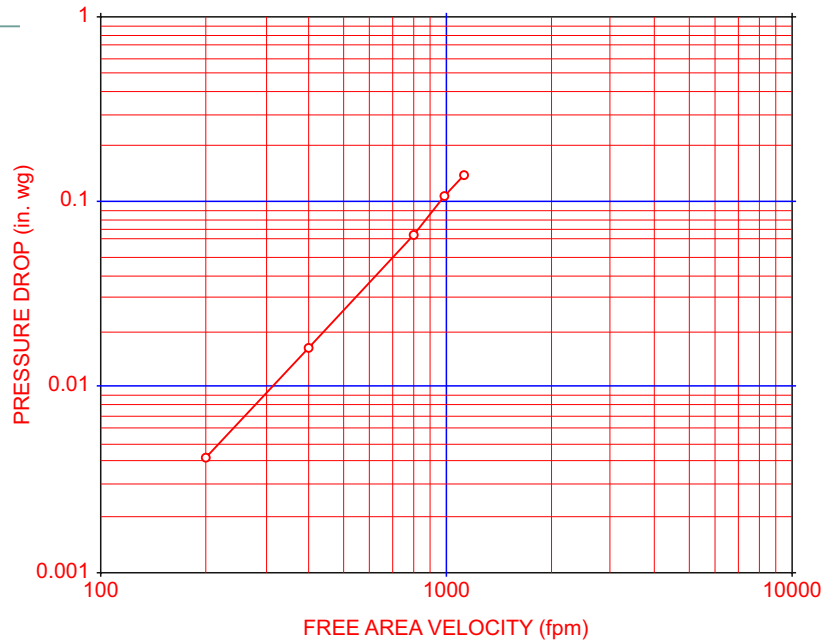
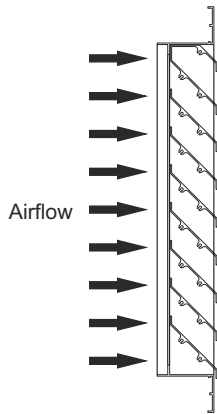
AMCA 500-L Tested Weather Louver



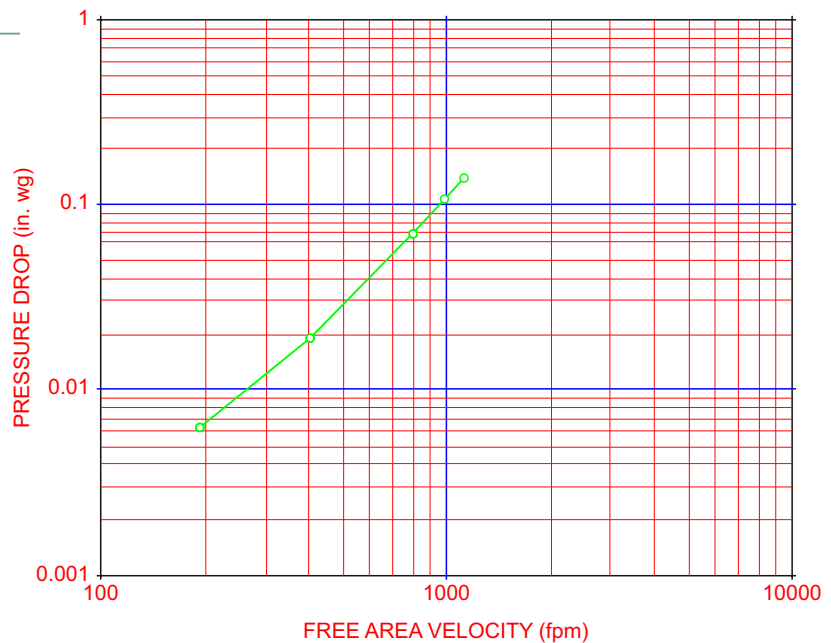
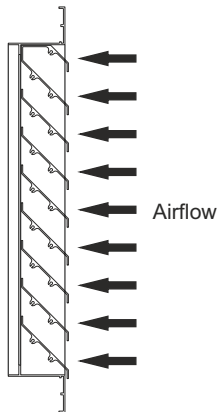
ENGINEERING & PERFORMANCE DATA

Pressure Drop Curves:

1- Exhaust Pressure Drop Curve



2- Intake Pressure Drop Curve



Note:

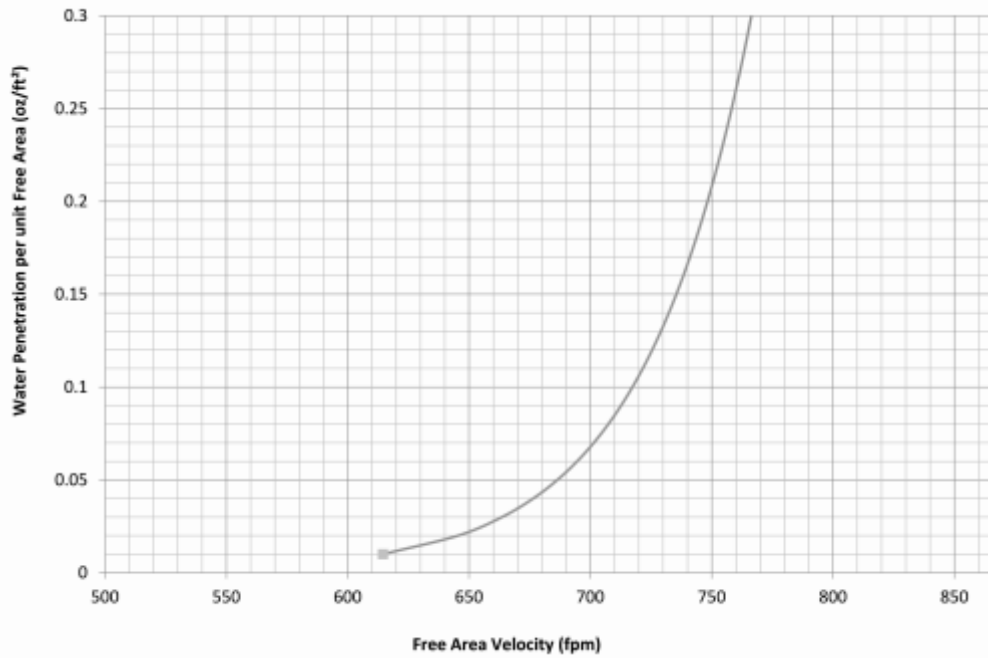
Tested in accordance with ANSI/AMCA 500-L. Figure 5.5
Test sample size is 1200mm x 1200mm.

ENGINEERING & PERFORMANCE DATA

Free Area Chart With Frame (Sqm)

		Width														
		(mm)	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
Height	400	0.027	0.037	0.047	0.057	0.067	0.074	0.084	0.092	0.102	0.112	0.122	0.131	0.141	0.151	0.161
	500	0.039	0.053	0.067	0.081	0.095	0.105	0.119	0.130	0.144	0.158	0.172	0.186	0.200	0.214	0.228
	600	0.050	0.068	0.086	0.104	0.123	0.136	0.154	0.168	0.186	0.204	0.223	0.241	0.259	0.277	0.295
	700	0.061	0.083	0.106	0.128	0.150	0.167	0.189	0.206	0.229	0.251	0.273	0.295	0.318	0.340	0.362
	800	0.072	0.099	0.125	0.152	0.178	0.198	0.225	0.244	0.271	0.297	0.324	0.350	0.377	0.403	0.429
	900	0.084	0.114	0.145	0.175	0.206	0.229	0.260	0.282	0.313	0.344	0.374	0.405	0.435	0.466	0.496
	1000	0.095	0.130	0.164	0.199	0.234	0.260	0.295	0.321	0.355	0.390	0.425	0.459	0.494	0.529	0.563
	1100	0.106	0.145	0.184	0.223	0.262	0.291	0.330	0.359	0.398	0.436	0.475	0.514	0.553	0.592	0.631
	1200	0.118	0.161	0.204	0.247	0.290	0.322	0.365	0.397	0.440	0.483	0.526	0.569	0.612	0.655	0.698
	1300	0.129	0.176	0.223	0.270	0.317	0.353	0.400	0.435	0.482	0.529	0.576	0.623	0.670	0.718	0.765
	1400	0.140	0.192	0.243	0.294	0.345	0.384	0.435	0.473	0.524	0.576	0.627	0.678	0.729	0.780	0.832
	1500	0.152	0.207	0.262	0.318	0.373	0.415	0.470	0.511	0.567	0.622	0.677	0.733	0.788	0.843	0.899
	1600	0.163	0.222	0.282	0.341	0.401	0.445	0.505	0.549	0.609	0.668	0.728	0.787	0.847	0.906	0.966
	1700	0.174	0.238	0.301	0.365	0.429	0.476	0.540	0.588	0.651	0.715	0.778	0.842	0.906	0.969	1.033
1800	0.186	0.253	0.321	0.389	0.456	0.507	0.575	0.626	0.693	0.761	0.829	0.897	0.964	1.032	1.100	

3- Water Penetration Test



Note:

Beginning of Water Penetration as per AMCA Publication 511 Section 8.3.2 based on AMCA measured free area: 613fpm.





DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Small Industries Zone - Pink Area Zone 81 - Street 13 - Bldg. 57
Tel: +974 44 500 118 - 44 500 119 - Fax: +974 44 500 117 - P.O. Box: 55619
Doha, State Of Qatar - Email: info@dvac-duct.com - Website: www.dvac-duct.com

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