

# 6DDWRG

## Wind-Driven Rain Resistant Stationary Louver

Extruded Aluminum



### APPLICATION

The 6DDWRG is a 6" deep mechanically fastened, extruded aluminum double drainable stationary horizontal louver designed to protect air intake and exhaust openings in exterior walls. This louver offers exceptional protection against wind-driven rain under the most severe conditions. This louver is designed with a drainable gutter system channeling water from the blades to downsputs in the jambs, where water is exhausted out of the front of the louver.

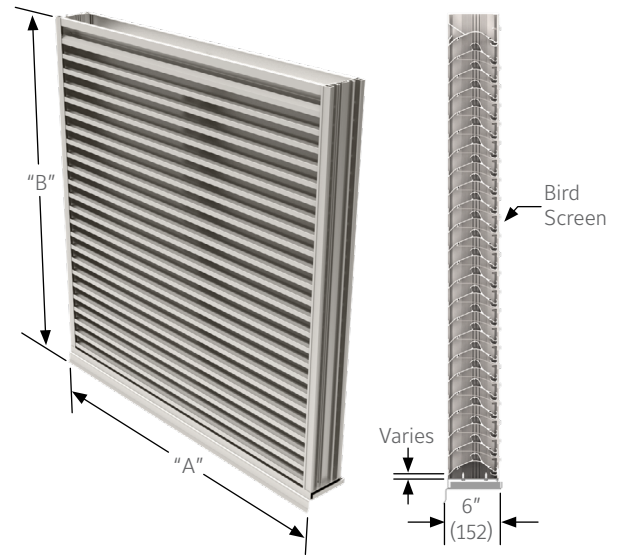
### STANDARD CONSTRUCTION

<b>Frame</b>	6" (152) deep, 6063T6 extruded aluminum with 0.080" (2.03) nominal wall thickness.
<b>Blades</b>	6063T6 extruded aluminum .080" (2.03) nominal wall thickness. Double drainable blades are sightproof, positioned at a 20° angle, and spaced approximately 2.12" (53) center to center.
<b>Screen</b>	5/8" x .040" (16 x 1) expanded flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.
<b>Finish</b>	Mill.
<b>Minimum Size</b>	8" x 8" (203 x 203).
<b>Approximate Shipping Weight</b>	7.5lbs. per sq. ft. (34.2 kg/m <sup>2</sup> ).
<b>Maximum Factory Assembly Size</b>	Single sections shall not exceed 120" x 90" h (3048 x 2286) or 90" w x 120" h (2286 x 3048). Unlimited W x Unlimited H. Louvers larger than the maximum single section size will require field assembly of smaller sections.
<b>Supports</b>	Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload.

Consult Reliable for additional information.

### FEATURES

- Closely spaced horizontal blades minimize the penetration of wind-driven rain
- Published performance ratings based on testing in accordance with AMCA publication 511
- 48% Free area
- Excellent pressure drop performance
- Aluminum construction for low maintenance and high resistance to corrosion
- Water penetration is above 1250fpm

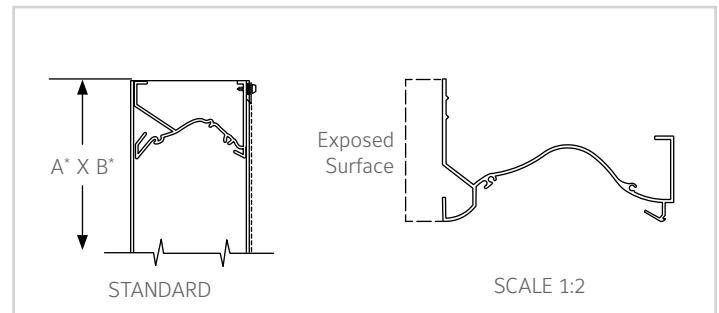


### VARIATIONS

- Extended sill
- Front or rear security bars
- Filter racks
- Installation angles
- Universal sleeve
- Blank of panels
- Front or rear flanged frame
- Glazing frame
- A variety of bird and insect screens
- Optional finishes available at additional cost : prime coat, 50% PVDF, 70% PVDF, epoxy, Pearledize 50 & 70, PVDF, clear and color anodize. (Some variation in anodize color consistency is possible)

Consult Reliable for other special requirements.

### FRAME CONSTRUCTION



#### NOTES:

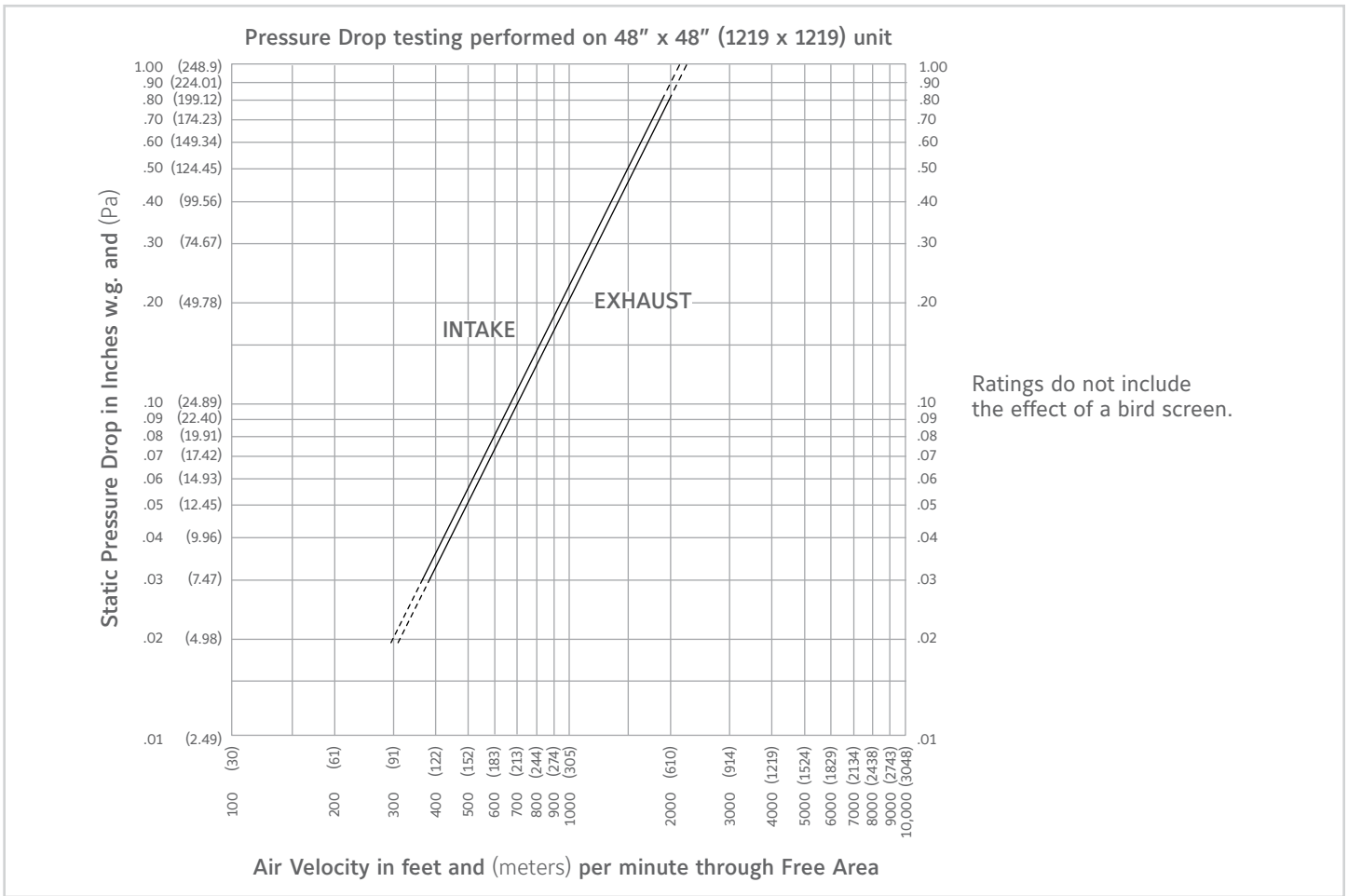
- Dimensions in inches, parenthesis ( ) indicate millimeters.
- Units can be furnished actual size or with size deducts.

# FREE AREA GUIDE

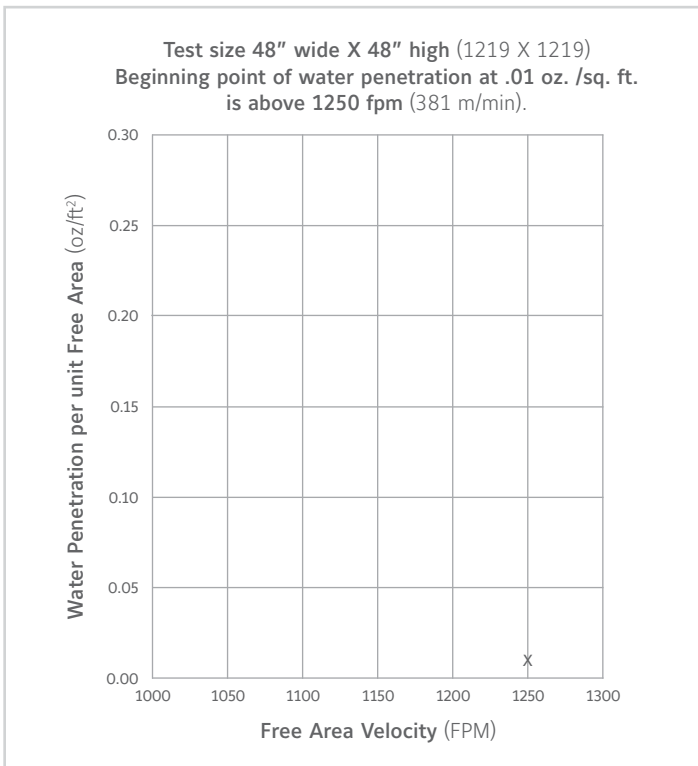
Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of 6DDWRG.

		Width – Inches																			
		8	12	18	24	30	36	42	48	54	60	66	72	79	84	90	96	102	108	114	120
		0.20	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	3.00
Height – Inches	8	0.09	0.15	0.25	0.34	0.44	0.54	0.63	0.73	0.82	0.92	1.01	1.11	1.20	1.30	1.40	1.49	1.59	1.68	1.78	1.87
	0.20	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.17
	12	0.18	0.91	0.50	0.69	0.88	1.07	1.26	1.45	1.65	1.84	2.03	2.22	2.41	2.60	2.79	2.99	3.18	3.37	3.56	3.75
	0.30	0.02	0.03	0.05	0.06	0.08	0.10	0.12	0.14	0.15	0.17	0.19	0.21	0.22	0.24	0.26	0.28	0.30	0.31	0.33	0.35
	18	0.27	0.46	0.75	1.03	1.32	1.61	1.99	2.18	2.47	2.76	3.04	3.33	3.62	3.90	4.19	4.48	4.76	5.05	5.34	5.62
	0.45	0.03	0.04	0.07	0.10	0.12	0.15	0.18	0.20	0.23	0.26	0.28	0.31	0.34	0.36	0.39	0.42	0.44	0.47	0.50	0.52
	24	0.40	0.69	1.12	1.55	1.98	2.41	2.84	3.27	3.70	4.13	4.56	4.99	5.43	5.86	6.29	6.72	7.15	7.58	8.01	8.44
	0.60	0.04	0.06	0.10	0.14	0.18	0.22	0.26	0.30	0.34	0.38	0.42	0.46	0.50	0.54	0.58	0.62	0.66	0.70	0.74	0.78
	30	0.54	0.92	1.49	2.07	2.64	3.22	3.79	4.36	4.94	5.51	6.09	6.66	7.23	7.81	8.38	8.96	9.53	10.10	10.68	11.25
	0.75	0.08	0.08	0.13	0.19	0.24	0.29	0.34	0.40	0.45	0.50	0.55	0.61	0.66	0.71	0.76	0.81	0.87	0.92	0.97	1.02
	36	0.67	1.15	1.87	2.59	3.30	4.02	4.74	5.46	6.17	6.89	7.61	8.33	9.04	9.76	10.48	11.19	11.91	12.63	13.35	14.06
	0.90	0.06	0.11	0.17	0.24	0.31	0.37	0.44	0.51	0.57	0.64	0.71	0.77	0.84	0.91	0.97	1.04	1.11	1.17	1.24	1.31
	42	0.81	1.38	2.24	3.10	3.96	4.82	5.69	6.55	7.41	8.27	9.13	9.99	10.85	11.71	12.57	13.43	14.29	15.16	16.02	16.88
	1.05	0.08	0.13	0.21	0.29	0.37	0.45	0.53	0.61	0.69	0.77	0.85	0.93	1.01	1.09	1.17	1.25	1.33	1.41	1.49	1.57
	48	0.94	1.61	2.62	3.62	4.62	5.63	6.63	7.64	8.64	9.65	10.65	11.66	12.66	13.66	14.67	15.67	16.68	17.68	18.69	19.69
	1.20	0.09	0.15	0.24	0.34	0.43	0.52	0.62	0.71	0.80	0.90	0.99	1.08	1.18	1.27	1.36	1.46	1.55	1.64	1.74	1.83
54	1.03	1.76	2.86	3.96	5.06	6.17	7.27	8.37	9.47	10.57	11.67	12.77	13.87	14.97	16.07	17.17	18.27	19.37	20.47	21.57	
1.35	0.10	0.16	0.27	0.37	0.47	0.57	0.68	0.78	0.88	0.98	1.08	1.19	1.29	1.39	1.49	1.60	1.70	1.80	1.90	2.01	
60	1.17	1.99	3.24	4.48	5.73	6.97	8.21	9.46	10.70	11.94	13.19	14.43	15.67	16.92	18.16	19.41	20.65	21.89	23.14	24.38	
1.50	0.11	0.19	0.30	0.42	0.53	0.65	0.76	0.88	1.00	1.11	1.23	1.34	1.46	1.57	1.69	1.80	1.92	2.04	2.15	2.27	
66	1.30	2.23	3.61	5.00	6.39	7.77	9.16	10.55	11.93	13.32	14.71	16.10	17.48	18.87	20.26	21.54	23.03	24.42	25.81	27.19	
1.65	0.12	0.21	0.34	0.46	0.59	0.72	0.85	0.98	1.11	1.24	1.37	1.50	1.63	1.75	1.88	2.01	2.14	2.27	2.40	2.53	
72	1.43	2.46	3.99	5.52	7.05	8.58	10.11	11.64	13.17	14.70	16.23	17.76	19.29	20.82	22.35	23.88	25.41	26.94	28.48	30.01	
1.80	0.13	0.23	0.37	0.51	0.66	0.80	0.94	1.08	1.22	1.37	1.51	1.65	1.79	1.94	2.08	2.22	2.36	2.51	2.65	2.79	
78	1.57	2.69	4.36	6.03	7.71	9.38	11.06	12.73	14.40	16.08	17.75	19.43	21.10	22.77	24.45	26.12	27.80	29.47	31.14	32.82	
1.95	0.15	0.25	0.41	0.56	0.72	0.87	1.03	1.18	1.34	1.50	1.65	1.81	1.96	2.12	2.27	2.43	2.59	2.74	2.90	3.05	
84	1.70	2.92	4.73	6.55	8.37	10.19	12.00	13.82	15.64	17.46	19.27	21.09	22.91	24.73	26.54	28.36	30.18	32.00	33.81	35.63	
2.10	0.16	0.27	0.44	0.61	0.78	0.95	1.12	1.29	1.45	1.62	1.79	1.96	2.13	2.30	2.47	2.64	2.81	2.98	3.14	3.31	
90	1.79	3.07	4.98	6.90	8.81	10.72	12.64	14.55	16.46	18.38	20.29	22.20	24.11	26.03	27.94	29.85	31.77	33.68	35.59	37.51	
2.25	0.17	0.29	0.46	0.64	0.82	1.00	1.18	1.35	1.53	1.71	1.89	2.06	2.24	2.42	2.60	2.78	2.95	3.13	3.31	3.49	

## PRESSURE DROP



## WATER PENETRATION GRAPH



Reliable Company certifies that the louver shown herein is licensed to bear the AMCA Seal. The ratings shown 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 Ratings Seal applies to air performance ratings, water penetration ratings and wind driven rain ratings only.

## WIND-DRIVEN RAIN PERFORMANCE

Test size is 1m x 1m (39" x 39") core area, 41.75" x 42.62" nominal. Free Area of test louver is 5.65ft<sup>2</sup>.

Wind Velocity mph (kph)	Rain Fall Rate In./hr. (mm/hr.)	Core Velocity FPM (m/s) <sup>2</sup>	Airflow CFM	Free Area Velocity FPM	Effectiveness Ratio	Class
29 (46.4)	3" (76)	589 (3.0)	6345	1123	99.7%	A
		689 (3.5)	7418	1313	99.50%	A
		788 (4.0)	8489	1503	99.30%	A
		886 (4.5)	9534	1687	98.60%	B
		985 (5)	10600	1876	95.20%	B

Wind Velocity mph (kph)	Rain Fall Rate In./hr. (mm/hr.)	Core Velocity FPM (m/s) <sup>2</sup>	Airflow CFM	Free Area Velocity FPM	Effectiveness Ratio	Class
50 (80.5)	8" (203)	481 (2.5)	5178	917	99.7%	A
		588 (3.0)	6331	1120	99.5%	A
		691 (3.5)	7436	1316	99.1%	A
		796 (4.0)	8566	1516	98.4%	B
		887 (4.5)	9552	1691	97.6%	B
		985 (5)	10603	1877	95.7%	B

### NOTES:

- Core area is the open area of the louver face (face area less louver frames). Core Velocity is the airflow velocity through the Core Area of the louver (1m x 1m).
- Free Area of test size is calculated per AMCA standard 500-L.
- Wind Driven Rain Penetration Classes:
 

Class	Effectiveness
A	1 to .99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.8
- The AMCA Wind Driven Rain Test is performed in a laboratory environment and incorporates controlled wind, water and system airflow effects. In actual field installations, storms may create conditions not considered by the AMCA test. Penthouse and similar applications where wind can pass through multiple louvers in an enclosure is another condition that is not simulated by AMCA tests. These applications can create elevated water penetration rates through any louver. Because of these uncontrolled situations, it is recommended that provisions to manage water penetration through louvers be included in the building design.

## SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary drainable type with drain gutters in each blade and downspouts in jambs and mullions. Louvers shall have a minimum of 48% free area based on a 48" wide x 48" high (1219 x 1219) size. Stationary drainable blades shall be contained within a 6" (152) frame. Louver components (heads, jambs, sills, blades, & mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall limit span between visible mullions to 10 feet (3) and shall incorporate structural supports required to withstand a windload of 30 lbs. per sq. ft. (1.44KPa) (equivalent of a 110 mph wind [177 KPH] wind-specifier may substitute any loading required).

Louvers shall be Reliable model 6DDWRG extruded 6063T6 aluminum construction as follows:

Frame: 6" (152) deep, .094" (2.4) wall thickness.

Blades: .080" (2.0) nominal wall thickness.

Screen: 5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.

Finish: Select finish specification from Reliable Finishes Brochure.

### LINKS TO IMPORTANT DOCUMENTS

Document Title
Finishes and Color Guide
Limited Warranty Document



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