

7DDWRG

Wind-Driven Rain Resistant Stationary Louver

Extruded Aluminum

RELIABLE

APPLICATION

The 7DDWRG is a 7" deep, extruded aluminum, sightproof, horizontal, stationary 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 that channels water from the blades to downspouts in the jambs. Here, water is exhausted out of the front of the louver.

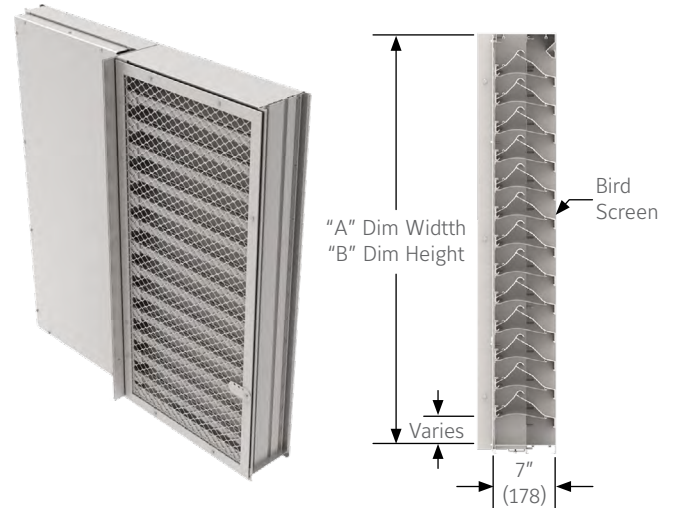
STANDARD CONSTRUCTION

Frame	7" (178) deep, 6063T6 extruded aluminum with .080" (2.0) nominal wall thickness.
Blades	6063T6 extruded aluminum .075" (1.9) nominal wall thickness with sightproof blades.
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	Mill.
Minimum Size	12"w x 12"h (305 x 305).
Approximate Shipping Weight	8 lbs. per sq. ft. (39 kg/m ²).
Maximum Factory Assembly Size	Single sections shall not exceed 120"w x 90"h (3048 x 2286) or 90"w x 120"h (2286 x 3048). Louvers larger than the maximum single section size will require field assembly of smaller sections.
Supports	Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload. accordance with AMCA Publication 511.

Consult Reliable Products for additional information.

FEATURES

- Closely spaced horizontal blades minimize the penetration of wind-driven rain, reducing damage and additional operating expenses. Optional 4" depth with or without blankoff for inactive louver areas.
- Tested in accordance with the AMCA 500-L Wind-Driven Rain Penetration Test.
- Published performance ratings based on testing in accordance with AMCA Publication 511.
- Aluminum construction for low maintenance and high resistance to corrosion.



VARIATIONS

- Extended sill.
- Hinged frame.
- Front or rear security bars.
- Filter racks.
- Installation angles.
- A variety of bird and insect screens.
- Selection of finishes: Prime coat, 50% PVDF (modified fluoropolymer), Epoxy, Pearledize 50 and 70, 70% PVDF, Clear and Color Anodized finishes. (Some variation in anodize color consistency is possible).

Consult Reliable Products for other special requirements.

Note:

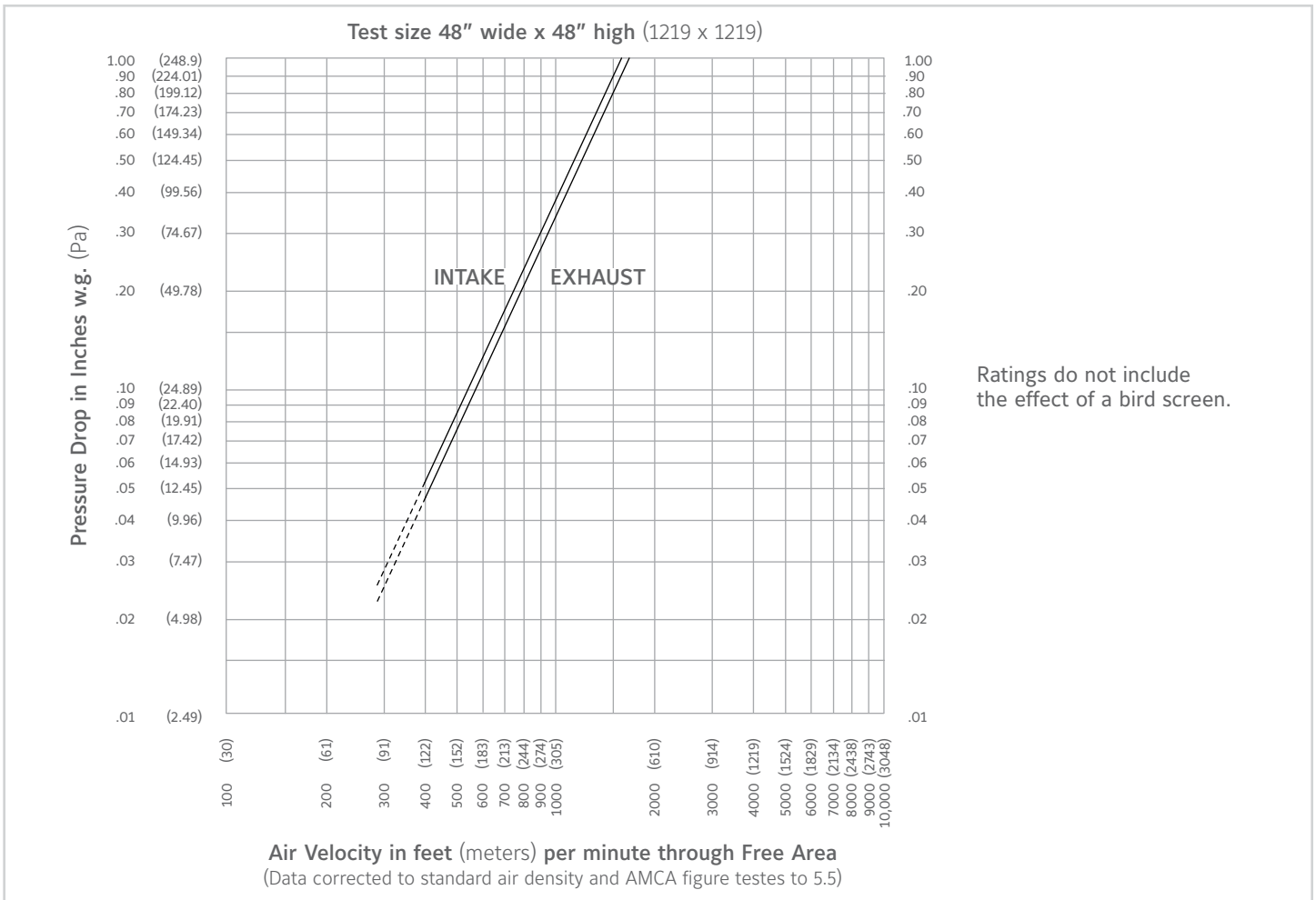
- Dimensions in inches, parenthesis () indicate millimeters.
- Units furnished 1/4" (6) smaller than given opening dimensions.
- Units are furnished actual size.

FREE AREA GUIDE

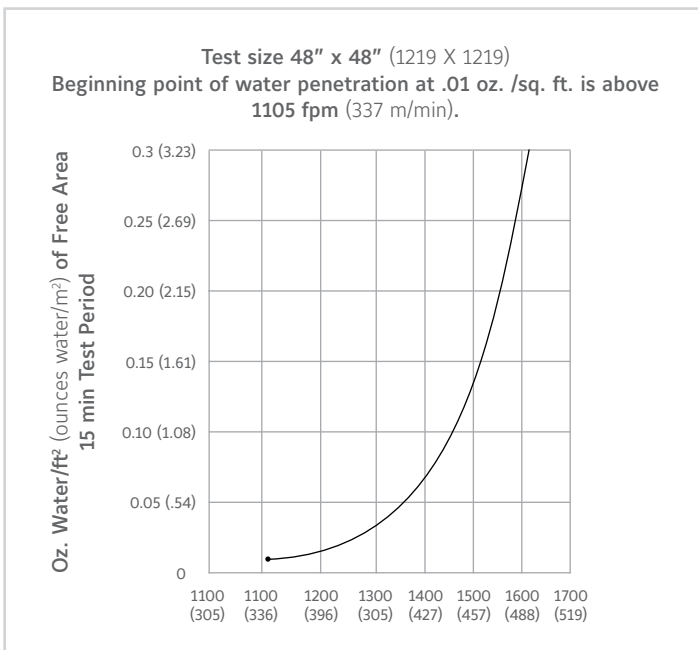
Free Area Guide shows free area in ft² and m² for various sizes of 7DDWRG.

		Width – Inches and Meters																			
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	
Height – Inches and Meters	12	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	
	12	0.30	0.32	0.52	0.72	0.91	1.11	1.31	1.50	1.70	1.90	2.09	2.29	2.48	2.68	2.88	3.07	3.27	3.47	3.66	3.86
	18	0.45	0.59	0.95	1.32	1.68	2.04	2.40	2.76	3.12	3.48	3.84	4.20	4.56	4.92	5.28	5.64	6.01	6.37	6.73	7.09
	24	0.60	0.86	1.39	1.91	2.44	2.96	3.49	4.01	4.54	5.06	5.59	6.11	6.64	7.16	7.69	8.21	8.74	9.26	9.79	10.31
	30	0.75	1.13	1.82	2.51	3.20	3.89	4.58	5.27	5.96	6.65	7.34	8.03	8.72	9.41	10.10	10.78	11.47	12.16	12.85	13.54
	36	0.90	1.37	2.21	3.05	3.88	4.72	5.55	6.39	7.22	8.06	8.89	9.73	10.56	11.40	12.23	13.07	13.90	14.74	15.58	16.41
	42	1.05	1.65	2.64	3.64	4.64	5.64	6.64	7.64	8.64	9.64	10.64	11.64	12.64	13.64	14.64	15.64	16.64	17.64	18.64	19.64
	48	1.20	1.92	3.08	4.24	5.41	6.57	7.73	8.90	10.06	11.23	12.39	13.55	14.72	15.88	17.05	18.21	19.37	20.54	21.70	22.87
	54	1.35	2.19	3.51	4.84	6.17	7.50	8.83	10.15	11.48	12.81	14.14	15.47	16.80	18.12	19.45	20.78	22.11	23.44	24.76	26.09
	60	1.50	2.46	3.95	5.44	6.93	8.43	9.92	11.41	12.90	14.40	15.89	17.38	18.87	20.37	21.86	23.35	24.84	26.34	27.83	29.32
	66	1.65	2.73	4.38	6.04	7.70	9.35	11.01	12.67	14.32	15.98	17.64	19.29	20.95	22.61	24.26	25.92	27.58	29.23	30.89	32.55
	72	1.80	3.00	4.82	6.64	8.46	10.28	12.10	13.92	15.74	17.56	19.39	21.21	23.03	24.85	26.67	28.49	30.31	32.13	33.95	35.77
	78	1.95	3.24	5.20	7.17	9.14	11.11	13.07	15.04	17.01	18.97	20.94	22.91	24.87	26.84	28.81	30.78	32.74	34.71	36.68	38.64
	84	2.10	3.51	5.64	7.77	9.90	12.03	14.16	16.30	18.43	20.56	22.69	24.82	26.95	28.08	31.21	33.35	35.48	37.61	39.74	41.87
	90	2.25	3.78	6.07	8.37	10.66	12.96	15.26	17.55	19.85	22.14	24.44	26.73	29.03	31.32	33.62	35.92	38.21	40.51	42.80	45.10
	96	2.40	4.05	6.51	8.97	11.43	13.89	16.35	18.81	21.27	23.73	26.19	28.65	31.11	33.57	36.03					
102	2.55	4.32	6.94	9.57	12.19	14.82	17.44	20.06	22.69	25.31	27.94	30.56	33.18	35.81	38.43						
108	2.70	4.59	7.38	10.17	12.95	15.74	18.53	21.32	24.11	26.90	29.68	32.47	35.26	38.05	40.84						
114	2.85	4.83	7.76	10.70	13.63	16.57	19.50	22.44	25.37	28.30	31.24	34.17	37.11	40.04	42.98						
120	3.00	5.10	8.20	11.30	14.40	17.49	20.59	23.69	26.79	29.89	32.99	35.09	39.19	42.28	45.38						

PRESSURE DROP



WATER PENETRATION GRAPH



Reliable Products certifies that the 7DDWRG 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 and wind driven rain ratings only.

WIND-DRIVEN RAIN PERFORMANCE

Test size is 1m x 1m (39 3/8" x 39 3/8") core area, 1.05m x 1.08m (41 1/2" x 43 1/4") nominal. Free Area of test louver is 6.85 ft² (.64m²).

Wind Velocity mph (kph)	Rain Fall Rate In./hr. (mm/hr.)	Core Velocity ₁ fpm (m/s)	Airflow cfm (m ³ /min)	Free Area Velocity ₃ fpm (m/ sec)	Effectiveness Ratio	Class _{3,4}	Discharge Loss Class ₃ Intake
29 (46.4)	3 (76)	497 (2.5)	5351 (152)	781 (4.0)	99.2%	A	3

NOTES:

1. 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). 5 m/s is the maximum core velocity utilized in this test.
2. Free Area of test size is calculated per AMCA standard 500-L.
3. 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

4. The 7DDWRG provides class A performance at all velocities up to and including 2.5 m/s core velocity.
5. Discharge Loss Coefficient is calculated by dividing a louvers' actual airflow rate vs. a theoretical airflow for the opening. It provides an indication of the louvers' airflow characteristics.

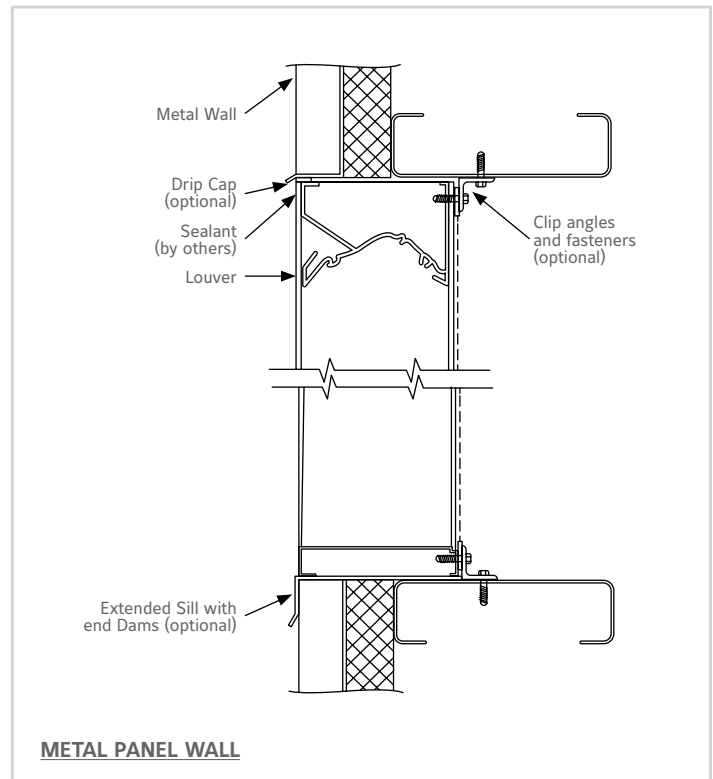
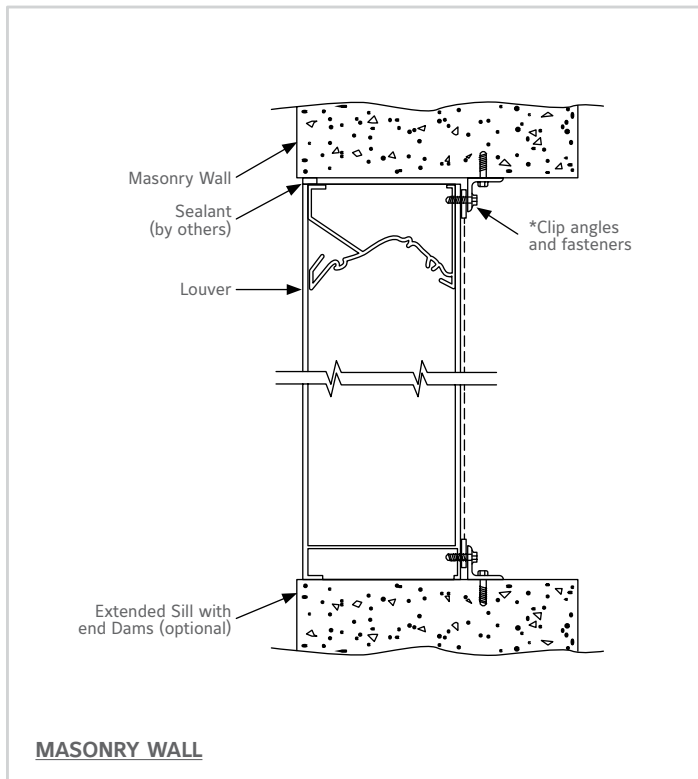
Class Discharge Loss Coefficient

1	0.4 and above
2	0.3 to 0.399
3	0.2 to 0.299
4	0.199 and below

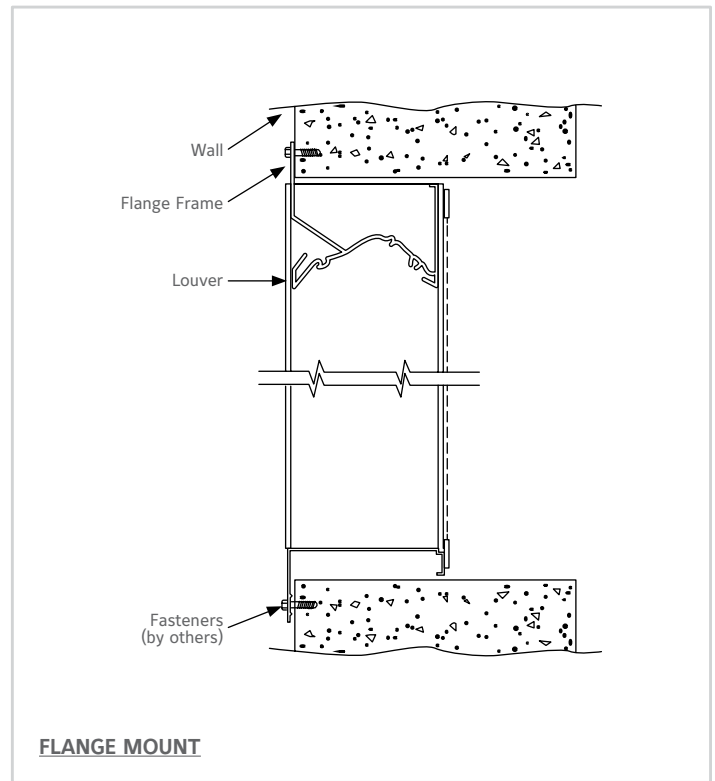
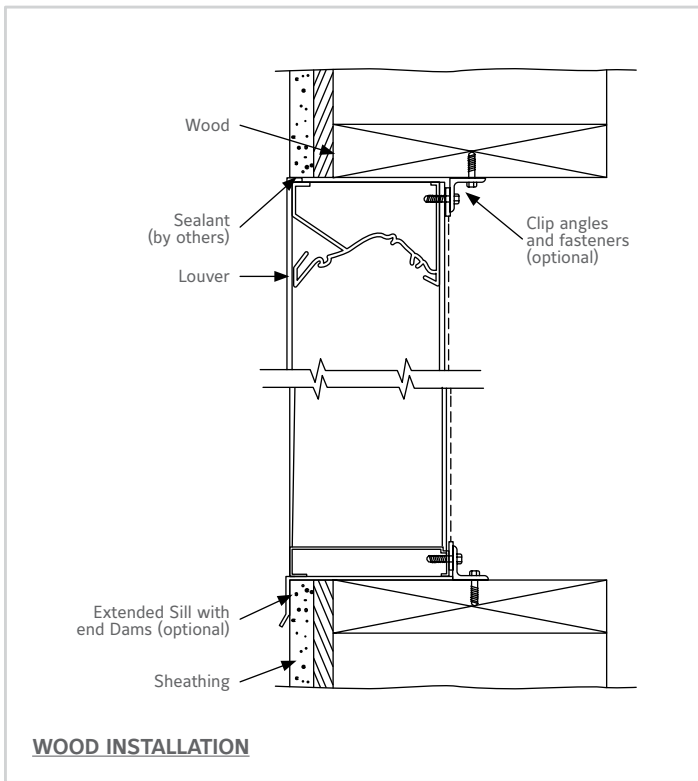
(The higher the coefficient, the less resistance to airflow.)

6. 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.

TYPICAL INSTALLATION DETAILS



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Options available at additional cost. Fasteners to wall are by others.

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 55% free area based on a 48" wide x 48" high (1219 x 1219) size. Stationary drainable blades shall be contained within a 7" (178) 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 7DDWRG extruded 6063T6 aluminum construction as follows:

Frame: 7" (178) deep, .080" (2.0) wall thickness.

Blades: .75" (1.9) 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

RELIABLE

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