

1300 ENTERPRISE ROAD

GENEVA, ALABAMA 36340-0580

800-239-4621

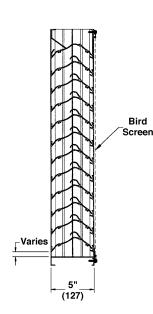
FAX 1-800-508-1469

www.reliablelouvers.com

5DDWRG WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER

EXTRUDED ALUMINUM

"B "A"



Dimensions in inches, parenthesis () indicate millimeters.





Reliable Products certifies that the 5DDWRG shown herein is reliable Flocuses clearlines that the SDFWH exponent for the shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program.

The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers.

FRAME

5" (127) deep, 6063T6 extruded aluminum with .081" (2.1) nominal wall thickness.

STANDARD CONSTRUCTION

BLADES

6063T6 extruded aluminum .063" (1.6) nominal wall thickness. Double drainable blades are sightproof and spaced approximately 2" (51) center to center.

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 7 lbs. per sq. ft. (34.2 kg/m²)

MAXIMUM FACTORY ASSEMBLY SIZE

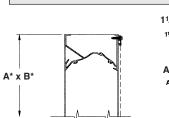
Single sections shall not exceed 120" x 90"h (3048 x 2286) or 90"w x 120"h (2286 x 3048). Louvers larger than the maximum single section size will require field assembly of smaller sections.

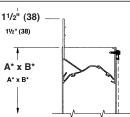
SUPPORTS

Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload.

FRAME CONSTRUCTION

Consult Reliable for additional information.





*Units furnished 1/4" (6) smaller than given opening dimensions.

FEATURES

- Closely spaced horizontal blades minimize the penetration of wind-driven rain.
- Wind-Driven Rain performance tested in accordance with AMCA 500-L
- · Published performance ratings based on testing in accordance with AMCA Publication 511.
- 47% Free Area.
- · Excellent pressure drop performance.
- Aluminum construction for low maintenance and high resistance to corrosion.
- TAS203 Cycle Pressure- 120psf

VARIATIONS

- Extended sill.
- Hinged frame.
- Front or rear security bars.
- · Filter racks.
- Installation angles.
- . Universal sleeve.
- · Blank of panels.
- · Integral flange.
- · A variety of bird and insect screens.
- · Selection of finishes: prime coat, baked enamel (modified fluoropolymer), epoxy, Pearledize 50 & 70, PVDF, clear and color anodize. (Some variation in anodize color consistency is possible).

Consult Reliable for other special requirements.



5DDWRG

WIND-DRIVEN RAIN PERFORMANCE

Test size is 1m x 1m (39" x 39") core area, 1.04m x 1.12m (41" x 44") nominal. Free Area of test louver is 5.45 ft² (.51m²).29 mph (47 kph) wind & 3" (76) per hour rain conditions50 mph (80 kph) wind & 8" (203) per hour rain conditions

| Core Velocity ₁ fpm (m/s) | Airflow cfm (m³/min) | Free Area Velocity ₂ fpm (m/sec.) | Effectiveness Ratio | Class₃ | Discharge Loss Class Intake | | |
|--|-------------------------|--|------------------------|--------|-----------------------------------|--|--|
| 0 (0) | 0 (0) | 0 (0) | 99.9% | А | 2 | | |
| 98 (.5) | 1060 (30) | 226 (1.1) | 99.9% | Α | 2 | | |
| 197 (1.0) | 2119 (60) | 389 (2.0) | 99.9% | Α | 2 | | |
| 287 (1.5) | 3179 (90) | 583 (3.0) | 99.9% | А | 2 | | |
| 381 (1.9) | 4239 (120) | 778 (4.0) | 99.9% | Α | 2 | | |
| 476 (2.4) | 5299 (150) | 972 (4.9) | 99.9% | А | 2 | | |
| 586 (3.0) | 6358 (180) | 1167 (5.9) | 99.8% | А | 2 | | |
| 673 (3.4) | 7418 (210) | 1361 (6.9) | 99.7% | Α | 2 | | |
| 763 (3.9) | 8478 (240) | 1556 (7.9) | 98.9% | В | 2 | | |
| 882 (4.5) | 9537 (270) | 1750 (8.9) | 97.3% | В | 2 | | |
| 987 (5.0) | 10597 (300) | 1944 (9.9) | 95.3% | В | 2 | | |

NOTES

- Core area is the open area of the louver face (face area less lover frames). Core Velocity is the airflow velocity through the Core Area of the louver (1m x 1m).
- 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. Intake Discharge Loss Class 2

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.

| Core Velocity ₁ fpm (m/s) | Airflow cfm (m³/min) | Free Area Velocity ₂ fpm (m/sec.) | Effectiveness Ratio | Class₃ | Discharge Loss Class Intake | | |
|--|-------------------------|--|------------------------|--------|-----------------------------------|--|--|
| 0 (0) | 0 (0) | 0 (0) | 99.4% | А | 2 | | |
| 106 (.5) | 1060 (30) | 226 (1.1) | 99.3% | Α | 2 | | |
| 184 (.9) | 2119 (60) | 389 (2.0) | 99.2% | Α | 2 | | |
| 282 (1.4) | 3179 (90) | 583 (3.0) | 99.0% | А | 2 | | |
| 408 (1.9) | 4239 (120) | 778 (4.0) | 99.0% | Α | 2 | | |
| 495 (2.5) | 5299 (150) | 972 (4.9) | 98.9% | В | 2 | | |
| 567 (2.9) | 6358 (180) | 1167 (5.9) | 98.9% | В | 2 | | |
| 680 (3.5) | 7418 (210) | 1361 (6.9) | 98.3% | В | 2 | | |
| 791 (4.0) | 8478 (240) | 1556 (7.9) | 97.2% | В | 2 | | |
| 882 (4.5) | 9537 (270) | 1750 (8.9) | 95.1% | В | 2 | | |
| 982 (5.0) | 10597 (300) | 1944 (9.9) | 23.9% | D | 2 | | |

Discharge Loss Classes:

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.)

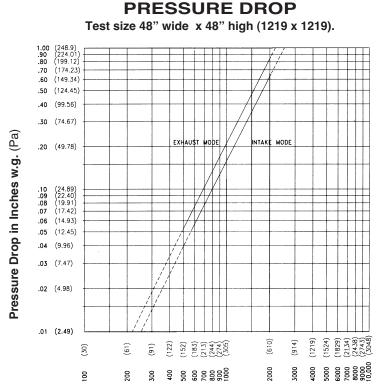
5. The AMCA Wind Driven Rain Test is performed in a laboratory environment and incorporates controlled wind, water and system airflow effects. In actual field installations, storms may create conditions not considered by the AMCA test. Penthouse and similar applications where wind can pass through multiple 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.

FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of 5DDWRG. Width – Inches and Meters

| | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 |
|------|------|------|--------------|-------|---------------|---------------|-------|-------|---------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|
| | 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 | 0.28 | 0.45 | 0.62 | 0.80 | 0.97 | 1.14 | 1.32 | 1.49 | 1.66 | 1.83 | 2.01 | 2.18 | 2.35 | 2.53 | 2.70 | 2.87 | 3.05 | 3.22 | 3.39 |
| 0.30 | 0.03 | 0.04 | 0.06 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.32 |
| 18 | 0.49 | 0.79 | 1.09 | 1.40 | 1.70 | 2.00 | 2.31 | 2.61 | 2.91 | 3.22 | 3.52 | 3.82 | 4.13 | 4.43 | 4.73 | 5.04 | 5.34 | 5.64 | 5.94 |
| 0.45 | 0.05 | 0.07 | 0.10 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.52 | 0.55 |
| 24 | 0.70 | 1.13 | 1.56 | 2.00 | 2.43 | 2.86 | 3.30 | 3.73 | 4.16 | 4.60 | 5.03 | 5.46 | 5.90 | 6.33 | 6.76 | 7.20 | 7.63 | 8.06 | 8.50 |
| 0.60 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.75 | 0.79 |
| 30 | 0.90 | 1.47 | 2.03 | 2.60 | 3.16 | 3.72 | 4.29 | 4.85 | 5.41 | 5.98 | 6.54 | 7.11 | 7.67 | 8.23 | 8.80 | 9.36 | 9.92 | 10.49 | 11.05 |
| 0.75 | 0.08 | 0.14 | 0.19 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.56 | 0.61 | 0.66 | 0.71 | 0.77 | 0.82 | 0.87 | 0.92 | 0.98 | 1.03 |
| 36 | 1.11 | 1.81 | 2.50 | 3.20 | 3.89 | 4.58 | 5.28 | 5.97 | 6.67 | 7.36 | 8.05 | 8.75 | 9.44 | 10.14 | 10.83 | 11.52 | 12.22 | 12.91 | 13.6 |
| 0.90 | 0.10 | 0.17 | 0.23 | 0.30 | 0.36 | 0.43 | 0.49 | 0.56 | 0.62 | 0.68 | 0.75 | 0.81 | 0.88 | 0.94 | 1.01 | 1.07 | 1.14 | 1.20 | 1.27 |
| 42 | 1.32 | 2.15 | 2.97 | 3.79 | 4.62 | 5.44 | 6.27 | 7.09 | 7.92 | 8.74 | 9.56 | 10.39 | 11.21 | 12.04 | 12.86 | 13.69 | 14.51 | 15.33 | 16.1 |
| 1.05 | 0.12 | 0.20 | 0.28 | 0.35 | 0.43 | 0.51 | 0.58 | 0.66 | 0.74 | 0.81 | 0.89 | 0.97 | 1.04 | 1.12 | 1.20 | 1.27 | 1.35 | 1.43 | 1.50 |
| 48 | 1.60 | 2.60 | 3.60 | 4.59 | 5.59 | 6.59 | 7.59 | 8.59 | 9.58 | 10.58 | 11.58 | 12.58 | 13.58 | 14.57 | 15.57 | 16.57 | 17.57 | 18.57 | 19.5 |
| 1.20 | 0.15 | 0.24 | 0.33 | 0.43 | 0.52 | 0.61 | 0.71 | 0.80 | 0.89 | 0.98 | 1.08 | 1.17 | 1.26 | 1.36 | 1.45 | 1.54 | 1.63 | 1.73 | 1.82 |
| 54 | 1.81 | 2.94 | 4.07 | 5.19 | 6.32 | 7.45 | 8.58 | 9.71 | 10.84 | 11.96 | 13.09 | 14.22 | 15.35 | 16.48 | 17.60 | 18.73 | 19.86 | 20.99 | 22.1 |
| 1.35 | 0.17 | 0.27 | 0.38 | 0.48 | 0.59 | 0.69 | 0.80 | 0.90 | 1.01 | 1.11 | 1.22 | 1.32 | 1.43 | 1.53 | 1.64 | 1.74 | 1.85 | 1.95 | 2.0 |
| 60 | 2.02 | 3.28 | 4.54 | 5.79 | 7.05 | 8.31 | 9.57 | 10.83 | 12.09 | 13.34 | 14.60 | 15.86 | 17.12 | 18.38 | 19.64 | 20.89 | 22.15 | 23.41 | 24.6 |
| 1.50 | 0.19 | 0.30 | 0.42 | 0.54 | 0.66 | 0.77 | 0.89 | 1.01 | 1.12 | 1.24 | 1.36 | 1.48 | 1.59 | 1.71 | 1.83 | 1.94 | 2.06 | 2.18 | 2.2 |
| 66 | 2.23 | 3.62 | 5.00 | 6.39 | 7.78 | 9.17 | 10.56 | 11.95 | 13.34 | 14.73 | 16.11 | 17.50 | 18.89 | 20.28 | 21.67 | 23.06 | 24.45 | 25.83 | 27.2 |
| 1.65 | 0.21 | 0.34 | 0.47 | 0.59 | 0.72 | 0.85 | 0.98 | 1.11 | 1.24 | 1.37 | 1.50 | 1.63 | 1.76 | 1.89 | 2.02 | 2.14 | 2.27 | 2.40 | 2.5 |
| 72 | 2.44 | 3.96 | 5.47 | 6.99 | 8.51 | 10.03 | 11.55 | 13.07 | 14.59 | 16.11 | 17.63 | 19.14 | 20.66 | 22.18 | 23.70 | 25.22 | 26.74 | 28.26 | 29.7 |
| 1.80 | 0.23 | 0.37 | 0.51 | 0.65 | 0.79 | 0.93 | 1.07 | 1.22 | 1.36 | 1.50 | 1.64 | 1.78 | 1.92 | 2.06 | 2.20 | 2.35 | 2.49 | 2.63 | 2.7 |
| 78 | 2.72 | 4.41 | 6.10 | 7.79 | 9.49 | 11.18 | 12.87 | 14.56 | 16.26 | 17.95 | 19.64 | 21.33 | 23.03 | 24.72 | 26.41 | 28.10 | 29.80 | 31.49 | 33.1 |
| 1.95 | 0.25 | 0.41 | 0.57 | 0.72 | 0.88 | 1.04 | 1.20 | 1.35 | 1.51 | 1.67 | 1.83 | 1.98 | 2.14 | 2.30 | 2.46 | 2.61 | 2.77 | 2.93 | 3.0 |
| 84 | 2.92 | 4.75 | 6.57 | 8.39 | 10.22 | 12.04 | 13.86 | 15.68 | 17.51 | 19.33 | 21.15 | 22.98 | 24.80 | 26.62 | 28.44 | 30.27 | 32.09 | 33.91 | 35.7 |
| 2.10 | 0.27 | 0.44 | 0.61 | 0.78 | 0.95 | 1.12 | 1.29 | 1.46 | 1.63 | 1.80 | 1.97 | 2.14 | 2.31 | 2.48 | 2.65 | 2.81 | 2.98 | 3.15 | 3.3 |
| 90 | 3.13 | 5.09 | 7.04 | 8.99 | 10.95 | 12.90 | 14.85 | 16.80 | 18.76 | 20.71 | 22.66 | 24.62 | 26.57 | 28.52 | 30.48 | 32.43 | 34.38 | 36.34 | 38.2 |
| 2.25 | 0.29 | 0.47 | 0.65 | 0.84 | 1.02 | 1.20 | 1.38 | 1.56 | 1.74 | 1.93 | 2.11 | 2.29 | 2.47 | 2.65 | 2.83 | 3.02 | 3.20 | 3.38 | 3.5 |
| 96 | 3.34 | 5.43 | 7.51 | 9.59 | 11.68 | 13.76 | 15.84 | 17.93 | 20.01 | 22.09 | 24.18 | 26.26 | 28.34 | 30.43 | 32.51 | 34.59 | 36.68 | 38.76 | 40.8 |
| 2.40 | 0.31 | 0.50 | 0.70 | 0.89 | 1.09 | 1.28 | 1.47 | 1.67 | 1.86 | 2.05 | 2.25 | 2.44 | 2.64 | 2.83 | 3.02 | 3.22 | 3.41 | 3.60 | 3.8 |
| 102 | 3.55 | 5.76 | 7.98 | 10.19 | 12.41 | 14.62 | 16.83 | 19.05 | 21.26 | 23.47 | 25.69 | 27.90 | 30.11 | 32.33 | 34.54 | 36.75 | 38.97 | 41.18 | 43.4 |
| 2.55 | 0.33 | 0.54 | 0.74 | 0.95 | 1.15 | 1.36 | 1.57 | 1.77 | 1.98 | 2.18 | 2.39 | 2.59 | 2.80 | 3.01 | 3.21 | 3.42 | 3.62 | 3.83 | 4.0 |
| 108 | 3.76 | 6.10 | 8.45 | 10.79 | 13.14 | 15.48 | 17.82 | 20.17 | 22.51 | 24.85 | 27.20 | 29.54 | 31.89 | 34.23 | 36.57 | 38.92 | 41.26 | 43.61 | 45.9 |
| 2.70 | 0.35 | 0.57 | 0.79 | 1.00 | 1.22 | 1.44 | 1.66 | 1.88 | 2.09 | 2.31 | 2.53 | 2.75 | 2.97 | 3.18 | 3.40 | 3.62 | 3.84 | 4.06 | 4.2 |
| 114 | 4.04 | 6.56 | 9.07 | 11.59 | 14.11 | 16.63 1.55 | 19.14 | 21.66 | 24.18 2.25 | 26.70 | 29.21 2.72 | 31.73 2.95 | 34.25 | 36.77 | 39.28 3.65 | 41.80 | 44.32 | 46.84 | 49.3 |
| 2.85 | 0.38 | 0.61 | 0.84 9.54 | 1.08 | 1.31 | 17.49 | 1.78 | 2.01 | 2.25 | 2.48 | 30.72 | 2.95 | 3.19 36.02 | 3.42 38.67 | 3.65 41.32 | 3.89 | 4.12 | 4.36 | 4.5 |
| | | | | | 14.84 1.38 | 17.49 | 20.13 | 22.78 | 25.43 | | 2.86 | | 36.02 | | 41.32 3.84 | 43.96 4.09 | 46.61 4.33 | 49.26 4.58 | 51.9 4.8 |
| 3.00 | 0.40 | 0.64 | 0.89 | 1.13 | 1.38 | 1.63 | 1.87 | 2.12 | 2.36 | 2.61 | 2.86 | 3.10 | 3.30 | 3.60 | 3.84 | 4.09 | 4.33 | 4.58 | 4.8 |

Height – Inches and Meters



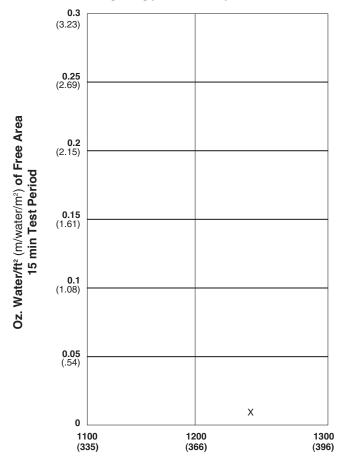
Ratings do not include the effect of a bird screen.

5DDWRG

Air Velocity in feet (meters) per minute through Free Area (Data corrected to standard air desity and AMCA figure tested to 5.5)

WATER PENETRATION GRAPH

Test size 48" x 48" (1219 x 1219) Beginning point of water penetration at .01 oz./sq. ft. is above 1250 fpm (381 m/min.)



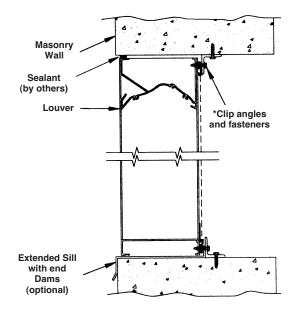


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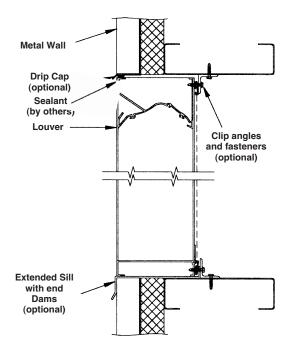
TYPICAL INSTALLATION DETAILS

Masonry Wall

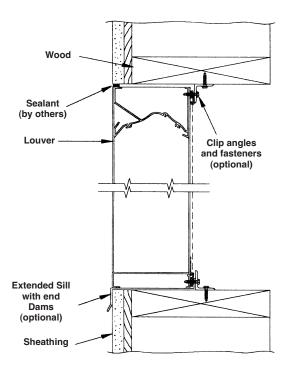


Wall Flange Frame Louver Louver Fasteners (by others)

Metal Panel Wall



Wood Installation



Flange Mount