# Model—RSR-500

## 127mm DEEP DRAINABLE BLADE STORM RESISTANT LOUVER

"Ontario Specialty Architectural Products FZE certifies that the Storm Resistant Model "RSR-500" 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, Water Penetration and Wind Driven Rain ratings Only."



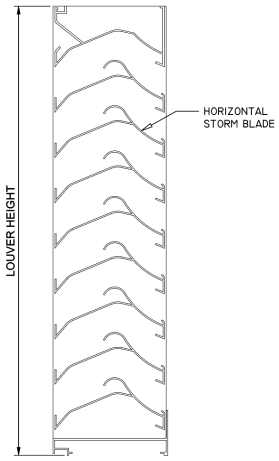
**PERFORMANCE:**

- Maintains **Class A** rating with 29mph wind velocity @ 3 in/hr rainfall rate @ Max. intake core velocity – **590 fpm (3.0 m/s)**
- Maintains **Class B** rating with 50mph wind velocity @ 8 in/hr rainfall rate @ Max. intake core velocity—**887 fpm (4.5 m/s)**
- Beginning point of water penetration (@0.01oz. / ft2 of free area)—**1,187 fpm (6.0 m/s)**
- Intake pressure drop at beginning point of water penetration – **0.26 in. wg (65 Pa)**
- Free Area: 48% , based on a test sample of 48 in (1219 mm) x 48 in (1219 mm)
- Intake pressure drop @ 1,000 fpm free area velocity—**0.18 in. wg (46 Pa)**
- Discharge loss coefficient Classification —**Class 2**

**WIND DRIVEN RAIN PERFORMANCE:**

The louver test was based on a 39.375 in. (1.0 m) x 39.375 in. (1.0 m) core area unit tested at a rainfall rate of 3 in. per hour (75 mm/hr) and with a wind directed to the face of the louver at a velocity 29mph (13 m/s) as well as a rainfall rate of 8" per hour (203 mm) and a wind of 50 mph (23.3 m/s). The test data shall show the water penetration effectiveness rating at each corresponding ventilation rate.

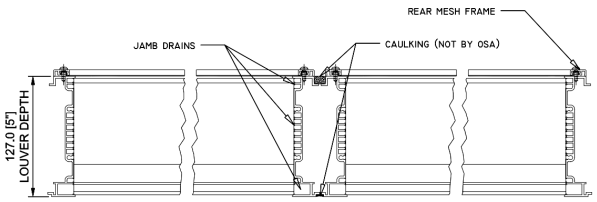
| Rainfall rate (in. per hour) : 3 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Wind velocity (mph) : 29 | | | | | | | | | | | |
| **Core Velocity, fpm (m/s)** | 0.0 | 110 (0.5) | 195 (1.0) | 279 (1.5) | 399 (2.0) | 501 (2.5) | 590 (3.0) | 702 (3.6) | 783 (4.0) | 890 (4.5) | 980 (5.0) |
| **Effectiveness (%)** | 100 | 100 | 100 | 100 | 99.9 | 99.8 | 99.6 | 98.8 | 97.9 | 94.7 | 93.1 |
| **Penetration Class** | **A** | **A** | **A** | **A** | **A** | **A** | **A** | B | B | C | C |
| **Rainfall rate (in. per hour) : 8** | | | | | | | | | | | |
| **Wind velocity (mph) : 50** | | | | | | | | | | | |
| **Core Velocity, fpm (m/s)** | 0.0 | 90 (0.5) | 197 (1.0) | 305 (1.5) | 407 (2.0) | 485 (2.5) | 592 (3.0) | 690 (3.5) | 781 (4.0) | 887 (4.5) | 990 (5.0) |
| **Effectiveness (%)** | 98.7 | 98.7 | 98.7 | 98.5 | 98.5 | 98.3 | 98.3 | 98.1 | 97.8 | 97.4 | 94.7 |
| **Penetration Class** | **B** | **B** | **B** | **B** | **B** | **B** | **B** | **B** | **B** | **B** | C |
| **Classification** | **A = 99.9% - 99% ; B = 98.9% - 95% ; C = 94.9% - 80% ; D = below 80%** | | | | | | | | | | |




SECTION

**Suggested Specifications:**

General: Furnish and install where indicated on drawings 5" (127mm) High Performance Storm Resistant Louver Model as manufactured by Ontario Specialty Architectural Products.




PLAN

**System Description:**

OSA Rain Storm Resistant series; extruded aluminum construction; frame with channel profile; corner joints mitered and mechanically fastened, with continuous recessed caulking channel each side; intermediate mullions matching frame; gutters to drain rain water to jamb and mulli-on downspouts; rated for an air performance and water penetration maintained effectiveness rate of 0.99 when tested in accordance with AMCA 500-L.

**Material & Finishes:**

1. RSR-500 comprises :
   a. Blades: Horizontal – Multi Drain Profile
   b. Frame depth: 5 inches (127 mm) deep..
2. Metal Thickness: Frame 0.081 inch (2 mm); blades 0.070 inch (1.78 mm).
3. Finish: PE-SDF / PVDF / Anodize after fabrication
4. Color: As scheduled.
5. Mullions: Concealed or Exposed.
6. Screens: Bird mesh / Insect mesh
7. Screen location: Interior
8. Screening Material: Aluminium / Stainless Steel

**Louver Construction:**

1. Wind Load Resistance: Design to resist +ve and –ve wind load of ___ psf (___kPa) without damage or permanent deformation.
2. Blades: One piece extrusions with reinforcing bosses, supported and lined up with heavy-gage extruded aluminum blade braces, positively interlocked to each blade and mechanically secured to structure by aluminum and stainless steel fastenings.
3. Exposed edges and ends of metal dressed smooth, free from sharp edges.
4. Exposed connections and joints constructed to exclude water.

**Optional Accessories:**

- Extended Sill Flashing
- Insulated and Non-insulated Bank-off Panels
- Sub-frames
- Visible Mullions
- Invisible mullions for continuous blade and appearance.

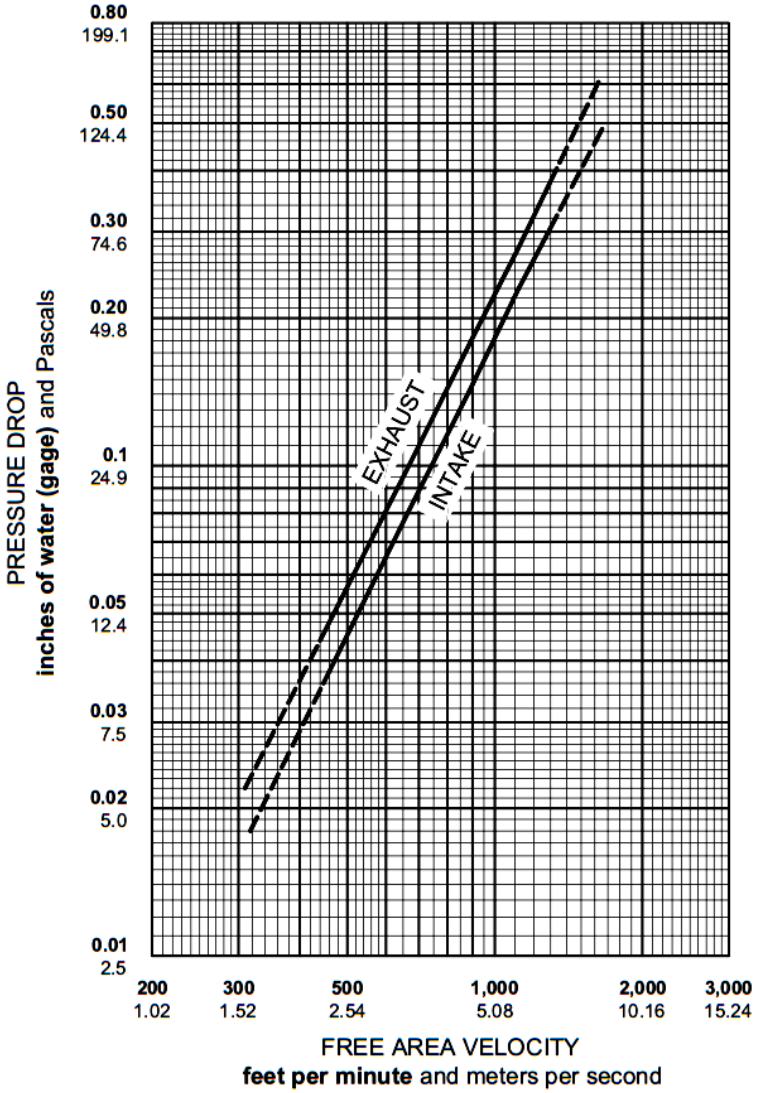
**Warranty:**

OSA louvers warranted for 2 years against defective material and workmanship, and 20 Years for Finishes.

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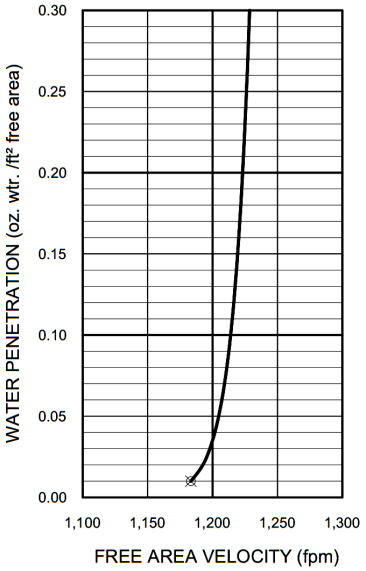
## 127mm DEEP DRAINABLE BLADE STORM RESISTANT LOUVER

| HEIGHT (IN & *mm*) | FREE AREA (ft² and *m²*) WIDTH (IN & *mm*) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **12** | **24** | **36** | **48** | **60** | **72** | **84** | **96** |
| | *305* | *610* | *914* | *1219* | *1524* | *1829* | *2134* | *2438* |
| **12** | **0.28** | **0.63** | **0.99** | **1.34** | **1.69** | **2.04** | **2.39** | **2.74** |
| *305* | *0.03* | *0.06* | *0.09* | *0.12* | *0.16* | *0.19* | *0.22* | *0.25* |
| **24** | **0.71** | **1.59** | **2.46** | **3.34** | **4.22** | **5.09** | **5.97** | **6.84** |
| *601* | *0.07* | *0.15* | *0.23* | *0.31* | *0.39* | *0.47* | *0.55* | *0.64* |
| **36** | **1.14** | **2.54** | **3.94** | **5.34** | **6.74** | **8.15** | **9.55** | **10.95** |
| *914* | *0.11* | *0.24* | *0.37* | *0.50* | *0.63* | *0.76* | *0.89* | *1.02* |
| **48** | **1.56** | **3.49** | **5.42** | **7.69** | **9.27** | **11.20** | **13.13** | **15.06** |
| *1219* | *0.15* | *0.32* | *0.50* | *0.71* | *0.86* | *1.04* | *1.22* | *1.40* |
| **60** | **1.99** | **4.44** | **6.90** | **9.35** | **11.80** | **14.26** | **16.71** | **19.16** |
| *1524* | *0.18* | *0.41* | *0.64* | *0.87* | *1.10* | *1.33* | *1.55* | *1.78* |
| **72** | **2.42** | **5.39** | **8.37** | **11.35** | **14.33** | **17.31** | **20.29** | **23.27** |
| *1829* | *0.22* | *0.50* | *0.78* | *1.06* | *1.33* | *1.61* | *1.89* | *2.16* |
| **84** | **2.84** | **6.35** | **9.85** | **13.36** | **16.86** | **20.37** | **23.87** | **27.37** |
| *2134* | *0.26* | *0.59* | *0.92* | *1.24* | *1.57* | *1.89* | *2.22* | *2.54* |
| **96** | **3.27** | **7.30** | **11.33** | **15.36** | **19.39** | **23.42** | **27.45** | **31.48** |
| *2438* | *0.30* | *0.68* | *1.05* | *1.43* | *1.80* | *2.18* | *2.55* | *2.93* |
| **108** | **3.69** | **8.25** | **12.81** | **17.36** | **21.92** | **26.47** | **31.03** | **35.59** |
| *2743* | *0.34* | *0.77* | *1.19* | *1.61* | *2.04* | *2.46* | *2.88* | *3.31* |
| **120** | **4.12** | **9.20** | **14.28** | **19.37** | **24.45** | **29.53** | **34.61** | **39.69** |
| *3048* | *0.38* | *0.86* | *1.33* | *1.80* | *2.27* | *2.74* | *3.22* | *3.69* |




### WATER PENETRATION

Standard Air = 0.75 lb. / ft³




The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The point of zero water penetration is defined as that velocity where the water penetration curve projects through .01 oz of water penetration per sq. ft. of louver area. **The beginning point of water penetration for RSR-500 is 1,187 fpm free area velocity**.

**Test Data**

- Published data is in accordance with ANSI/AMCA 500-L, Figure 5.5. The AMCA Certified Ratings Seal applies to Air Performance in the intake & exhaust airflow directions. Data corrected to standard air density. Test Sample Size 48”x48”.
- Ratings include the effects of a drain pan.

**Blast Data**

- Model RSR-500 is designed to withstand up to 12 psi blast pressure at an impulse of 89 psi-msec.