



**EXTRUDED ALUMINUM STATIONARY LOUVER**  
**MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED**  
**HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT**  
**3" (76) DEEP • VERTICAL BLADE**  
**MODEL: 1603WDVM**

**QUALIFICATIONS:**

- Miami-Dade Count NOA No. : 26-0518.10
- Florida Product Approval No. : PENDING
- Tested in accordance with: TAS-201 (Large Missile Impact Test), TAS-202 (Uniform Static Air Pressure Test), TAS-203 (Cyclic Wind Pressure Loading Test).
- AMCA 500-L (Wind-Driven Rain, Water Penetration, Air Performance).
- AMCA 540 (Wind-Borne Debris Impact Test [Basic "Level D" Protection]).
- AMCA 550 (High Velocity Wind-Driven Rain Resistance Test).
- Wind load rating +/- 120 PSF.

**STANDARD CONSTRUCTION:**

- FRAME:** 3" (76) deep, Type 6063-T6 extruded aluminum, .090" (2.29) nominal wall thickness. Integral downspouts and caulking slot provided.
- BLADES:** Type 6063-T6 extruded aluminum, .060" (1.52) nominal wall thickness, with reinforcing bosses.
- BLADE STYLE:** Sinusoidal.
- BLADE SPACING:** Approximately .875" (22) on centers.
- BLADE SUPPORT:** 2.5" (64) strap every 40" (102) or less in height.
- SCREEN:** 3/4" x .050 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).
- FINISH:** Mill.
- MINIMUM SIZE:** 12" W x 12" H (305 x 305).
- MAX. SINGLE SECTION SIZE:** 60" W x 120" H (1524 x 3048)  
50 sq. ft. (4.6 m<sup>2</sup>). Larger louvers will require field assembly of smaller sections.
- MAXIMUM SIZE:** Unlimited Width x 120" H (3048).

**OPTIONS:**

- ☐ **FL15** Flanged Frame, 1 1/2" (38)
- ☐ **FL20** Flanged Frame, 2" (51)
- ☐ **BSSS** Type 304 S.S. Bird Screen.
- ☐ **BSN** No Bird Screen.
- ☐ **ISA** Aluminum Insect Screen.
- ☐ **ISSS** Type 304 S.S. Insect Screen.
- ☐ **ESI** Extended Sill.
- ☐ **PASI** Sill Pan.
- ☐ **PAAA** Perimeter Anchor Angles (Aluminum, Continuous).
- ☐ Other: \_\_\_\_\_

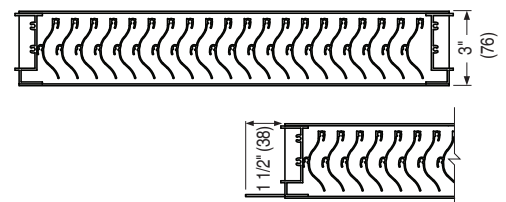
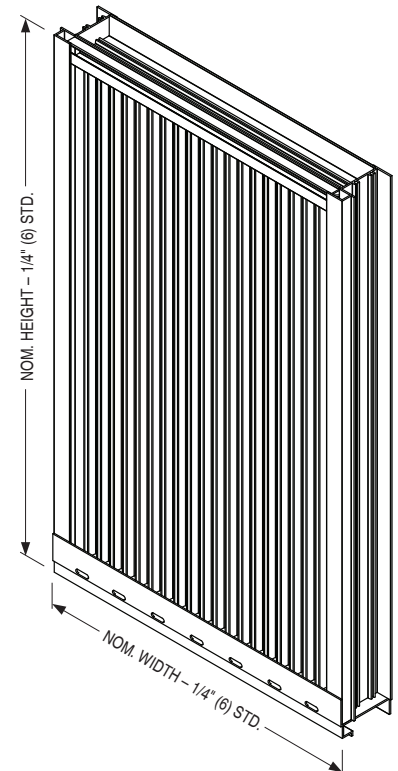
**OPTIONAL FINISHES:**

- ☐ **PC3** Powder Coat AAMA 2603.  
Color: \_\_\_\_\_
- ☐ **PC4** High Performance Powder Coat AAMA 2604  
(Equivalent to 50% Kynar®). Color: \_\_\_\_\_
- ☐ **PC5** Fluoropolymer Powder Coat AAMA 2605  
(Equivalent to 70% Kynar®). Color: \_\_\_\_\_
- ☐ **PCC** Prime Coat.

- ☐ **AN04** Clear Anodized 204-R1.
- ☐ **AN15** Clear Anodized 215-R1.
- ☐ **ANLB** Light Bronze.
- ☐ **ANMB** Medium Bronze.
- ☐ **ANDB** Dark Bronze.
- ☐ **ANBK** Black.

For Installation Instructions, see approved NOA.

Page 1 of 3  
Dimensions are in inches (mm).



OPT. FLANGED FRAME (FL15 STD.)

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

**DATE**

**B SERIES**

**SUPERSEDES**

**DRAWING NO.**

6 - 30 - 26

1600

5 - 15 - 26

1603WDVM



**EXTRUDED ALUMINUM STATIONARY LOUVER**  
**MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED**  
**HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT**  
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**FREE AREA in Square Feet and Square Meters**

|                             |     | Width in Inches and Meters |              |               |               |               |               |               |               |               |
|-----------------------------|-----|----------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                             |     | 12                         | 18           | 24            | 30            | 36            | 42            | 48            | 54            | 60            |
| Height in Inches and Meters | 12  | 0.23<br>0.30               | 0.39<br>0.02 | 0.53<br>0.04  | 0.69<br>0.05  | 0.85<br>0.06  | 1.01<br>0.08  | 1.17<br>0.09  | 1.33<br>0.11  | 1.49<br>0.12  |
|                             | 18  | 0.47<br>0.46               | 0.80<br>0.04 | 1.08<br>0.07  | 1.41<br>0.10  | 1.74<br>0.13  | 2.06<br>0.16  | 2.39<br>0.19  | 2.72<br>0.22  | 3.05<br>0.25  |
|                             | 24  | 0.71<br>0.61               | 1.20<br>0.07 | 1.63<br>0.11  | 2.13<br>0.15  | 2.62<br>0.20  | 3.12<br>0.24  | 3.61<br>0.29  | 4.11<br>0.34  | 4.61<br>0.38  |
|                             | 30  | 0.95<br>0.76               | 1.61<br>0.09 | 2.18<br>0.15  | 2.85<br>0.20  | 3.51<br>0.26  | 4.17<br>0.33  | 4.84<br>0.39  | 5.50<br>0.45  | 6.16<br>0.51  |
|                             | 36  | 1.19<br>0.91               | 2.02<br>0.11 | 2.73<br>0.19  | 3.56<br>0.25  | 4.40<br>0.33  | 5.23<br>0.41  | 6.06<br>0.49  | 6.89<br>0.56  | 7.72<br>0.64  |
|                             | 42  | 1.43<br>1.07               | 2.43<br>0.13 | 3.28<br>0.23  | 4.28<br>0.31  | 5.28<br>0.40  | 6.28<br>0.49  | 7.28<br>0.58  | 8.28<br>0.68  | 9.28<br>0.77  |
|                             | 48  | 1.67<br>1.22               | 2.83<br>0.15 | 3.83<br>0.26  | 5.00<br>0.36  | 6.17<br>0.46  | 7.34<br>0.57  | 8.50<br>0.68  | 9.67<br>0.79  | 10.84<br>1.01 |
|                             | 54  | 1.91<br>1.37               | 3.24<br>0.18 | 4.39<br>0.30  | 5.72<br>0.41  | 7.05<br>0.53  | 8.39<br>0.66  | 9.72<br>0.78  | 11.06<br>0.90 | 12.39<br>1.03 |
|                             | 60  | 2.15<br>1.52               | 3.65<br>0.20 | 4.94<br>0.34  | 6.44<br>0.46  | 7.94<br>0.60  | 9.44<br>0.74  | 10.95<br>0.88 | 12.45<br>1.02 | 13.95<br>1.16 |
|                             | 66  | 2.39<br>1.68               | 4.06<br>0.22 | 5.49<br>0.38  | 7.16<br>0.51  | 8.83<br>0.66  | 10.50<br>0.82 | 12.17<br>0.98 | 13.84<br>1.13 | 15.51<br>1.29 |
|                             | 72  | 2.63<br>1.83               | 4.46<br>0.24 | 6.04<br>0.41  | 7.88<br>0.56  | 9.71<br>0.73  | 11.55<br>0.90 | 13.39<br>1.07 | 15.23<br>1.24 | 17.07<br>1.41 |
|                             | 78  | 2.87<br>1.98               | 4.87<br>0.27 | 6.59<br>0.45  | 8.60<br>0.61  | 10.60<br>0.80 | 12.61<br>0.98 | 14.61<br>1.17 | 16.62<br>1.36 | 18.62<br>1.54 |
|                             | 84  | 3.10<br>2.13               | 5.28<br>0.29 | 7.14<br>0.49  | 9.31<br>0.66  | 11.49<br>0.87 | 13.66<br>1.07 | 15.83<br>1.27 | 18.01<br>1.47 | 20.18<br>1.67 |
|                             | 90  | 3.34<br>2.29               | 5.69<br>0.31 | 7.69<br>0.53  | 10.03<br>0.71 | 12.37<br>0.93 | 14.71<br>1.15 | 17.06<br>1.37 | 19.40<br>1.58 | 21.74<br>1.80 |
|                             | 96  | 3.58<br>2.44               | 6.09<br>0.33 | 8.24<br>0.57  | 10.75<br>0.77 | 13.26<br>1.00 | 15.77<br>1.23 | 18.28<br>1.46 | 20.79<br>1.70 | 23.29<br>1.93 |
|                             | 102 | 3.82<br>2.59               | 6.50<br>0.36 | 8.79<br>0.60  | 11.47<br>0.82 | 14.15<br>1.07 | 16.82<br>1.31 | 19.50<br>1.56 | 22.18<br>1.81 | 24.85<br>2.06 |
|                             | 108 | 4.06<br>2.74               | 6.91<br>0.38 | 9.34<br>0.64  | 12.19<br>0.87 | 15.03<br>1.13 | 17.88<br>1.40 | 20.72<br>1.66 | 23.57<br>1.92 | 26.41<br>2.19 |
|                             | 114 | 4.30<br>2.90               | 7.31<br>0.40 | 9.90<br>0.68  | 12.91<br>0.92 | 15.92<br>1.20 | 18.93<br>1.48 | 21.94<br>1.76 | 24.95<br>2.04 | 27.97<br>2.32 |
|                             | 120 | 4.54<br>3.05               | 7.72<br>0.42 | 10.45<br>0.72 | 13.63<br>0.97 | 16.81<br>1.27 | 19.99<br>1.56 | 23.16<br>1.86 | 26.34<br>2.15 | 29.52<br>2.45 |

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

Page 2 of 3  
Dimensions are in inches (mm).

**DATE**

**B SERIES**

**SUPERSEDES**

**DRAWING NO.**

3 - 27 - 26

1600

NEW

1603WDVM



**EXTRUDED ALUMINUM STATIONARY LOUVER**  
**MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED**  
**HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT**  
**3" (76) DEEP • VERTICAL BLADE • PERFORMANCE DATA**  
**MODEL: 1603WDVM**

**AIRFLOW / WATER PENETRATION DATA**  
**for 48" x 48" (1219 x 1219) Louver Size**

|                                                                                                                    |                        |
|--------------------------------------------------------------------------------------------------------------------|------------------------|
| Free Area %                                                                                                        | 53%                    |
| Free Area sq. ft. (sq. m.)                                                                                         | 8.50 (0.79)            |
| Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration) | 1250 fpm (381 m/min.)* |
| Air Volume at 1250 fpm                                                                                             | 10,625 cfm (5014 l/s)  |
| Free Area Velocity                                                                                                 |                        |
| Pressure Drop @ 1250 fpm                                                                                           | .24 in. w.g. (60 Pa)   |

**NOTE:** To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.\*Maximum Free Area Velocity tested is 1250 fpm. Beginning point of water penetration for this model is above 1250 fpm.

**WIND DRIVEN RAIN PERFORMANCE**

|                                         |          |            |            |            |            |            |            |             |             |             |             |
|-----------------------------------------|----------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| Core Ventilation Rate in fpm (m/s)      | 0 (0.00) | 98 (0.50)  | 197 (1.00) | 295 (1.50) | 393 (2.00) | 492 (2.50) | 590 (3.00) | 688 (3.50)  | 791 (4.02)  | 888 (4.51)  | 986 (5.01)  |
| Free Area Ventilation Rate in fpm (m/s) | 0 (0.00) | 164 (0.83) | 328 (1.66) | 491 (2.49) | 655 (3.33) | 819 (4.16) | 983 (4.99) | 1146 (5.82) | 1291 (6.56) | 1449 (7.36) | 1612 (8.19) |
| Effectiveness Ratio (%)                 | 100      | 100        | 100        | 100        | 100        | 100        | 100        | 100         | 100         | 100         | 99.9        |
| Penetration Class                       | A        | A          | A          | A          | A          | A          | A          | A           | A           | A           | A           |

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 3" per hour (76 mm/hour) with a wind velocity of **29 mph (13 m/s)**.

|                                         |          |            |            |            |            |            |            |             |             |             |             |
|-----------------------------------------|----------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| Core Ventilation Rate in fpm (m/s)      | 0 (0.00) | 95 (0.48)  | 192 (0.98) | 292 (1.48) | 381 (1.94) | 474 (2.41) | 576 (2.93) | 663 (3.37)  | 764 (3.88)  | 863 (4.38)  | 955 (4.85)  |
| Free Area Ventilation Rate in fpm (m/s) | 0 (0.00) | 159 (0.81) | 319 (1.62) | 485 (2.47) | 635 (3.22) | 789 (4.01) | 958 (4.87) | 1103 (5.60) | 1271 (6.46) | 1406 (7.14) | 1556 (7.90) |
| Effectiveness Ratio (%)                 | 100      | 100        | 100        | 100        | 100        | 100        | 100        | 100         | 100         | 100         | 100         |
| Penetration Class                       | A        | A          | A          | A          | A          | A          | A          | A           | A           | A           | A           |

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 8" per hour (203 mm/hour) with a wind velocity of **50 mph (22 m/s)**.

| Wind Driven Rain Penetration Classes |               |
|--------------------------------------|---------------|
| Class                                | Effectiveness |
| A                                    | 1 to 0.99     |
| B                                    | 0.989 to .95  |
| C                                    | 0.949 to .80  |
| D                                    | Below 0.80    |

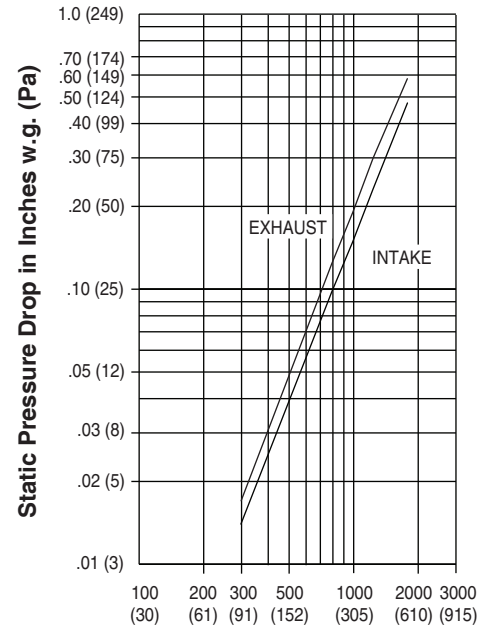


Nailor Industries Inc. certifies that the Model 1603WDVM shown herein is licensed to bear the AMCA Certified Ratings Program seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Program seal applies to Water Penetration, Wind Driven Rain, and Air Performance ratings.

Louvers were tested in accordance with AMCA Standard 500-L.



**PRESSURE DROP**



**Air Velocity in Feet (Meters) Per Minute Through Free Area**

Louver test size: 48" x 48" (1219 x 1219 mm).  
 Standard air density @ 0.075 lbs/ft³.  
 Tested to AMCA Fig. 5.5 – 6.5.



**HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN AND IMPACT RESISTANT LOUVER**  
*Basic Protection Level D*

See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Nailor Industries Inc. certifies that the 1603WDVM louver shown herein is approved to bear the AMCA International 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 International Listing Label program. The AMCA International Listing Label applies to pressure cycle tested wind borne debris impact resistant louvers rated for Basic Protection and +/- 120PSF with a minimum blade span of less than 12 in. (305mm) and a maximum unsupported blade span of 38 in. (97 mm) and to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully open position that permits airflow through a louver.

**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

Page 3 of 3  
 Dimensions are in inches (mm).

| DATE        | B SERIES | SUPERSEDES | DRAWING NO. |
|-------------|----------|------------|-------------|
| 3 - 27 - 26 | 1600     | NEW        | 1603WDVM    |