



## 4" WIND DRIVEN RAIN FIXED LOUVER MODEL RD-4

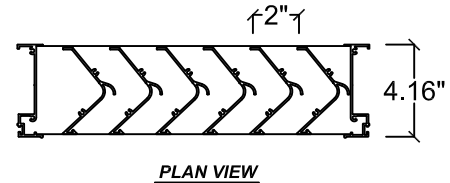
### STANDARD CONSTRUCTION:

FRAME: .081 Extruded Aluminum 4.16" Deep  
BLADES: .081 Extruded Aluminum on approximately 2" centers.  
EXTENDED SILL: .081 Extruded Aluminum, 5.25" Deep  
BIRDSCREEN: .75" x .051" Flattened Aluminum in removeable frame.  
Screen is mounted as standard on inside (rear)  
as looking from exterior of building.

FINISH: Mill Aluminum (Std)

MINIMUM SIZE: 12"w x 12"h

MAXIMUM SIZE: Factory Assembled 60"w x 96"h

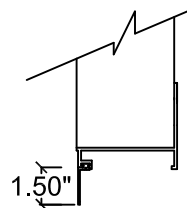
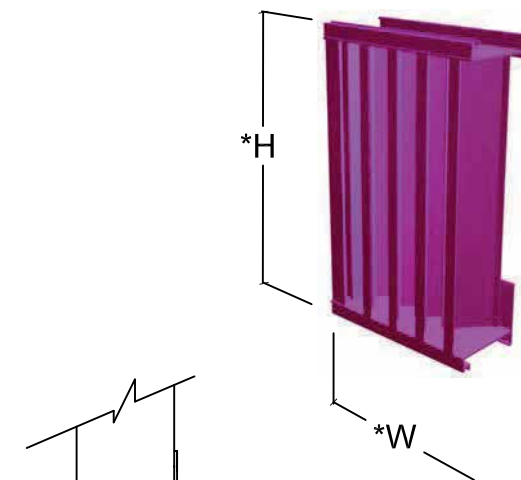


### OPTIONS:

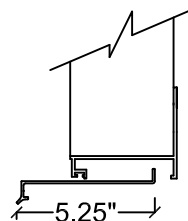
- ☐ Flanged Frame (1.50" std.), (1" std for shapes R\_ )
- ☐ Custom Flange (1", 2", or 3"), (1.5", 2", or 3" for shapes R\_ )
- ☐ Extended Sill
- ☐ Glazing Adapter (.50" or .75")
- ☐ Insect Screen (Other Screen Available, See Screen Page)
- ☐ Filter Racks (no screen)
- ☐ Security Bars
- ☐ Hinged Sub Frame
- ☐ Welded Construction (Wind Load +/- 50 psf)
- ☐ Blank-off, Alum., non-insulated, no screen, non-removeable
- ☐ Blank-off, Alum., non-insulated, with bird screen or insect screen
- ☐ Blank-off, Alum., insulated double wall, with bird screen, removable
- ☐ Blank-off, Alum., insulated double wall, no screen, non-removeable

### AVAILABLE FINISHES:

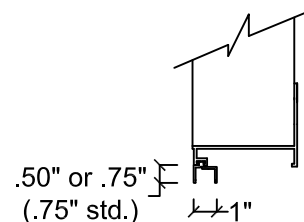
- ☐ **Powder Polyester TGIC** (2 coats) baked on at 410°F, 2.5 to 3.5 mils
- ☐ **Powder Super durable polyester** (2 coats) baked on at 410°F, 2.5 to 3.5 mils
- ☐ **Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry
- ☐ **Kynar® (ALUM\*A\*STAR®)** 2 coats by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry
- ☐ **Kynar 500® or HYLAR® 5000 70% TRINAR®** (2 coats) by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry,
- ☐ **Kynar 500® or HYLAR® 5000 (70% Tri-Escent II)** (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F, 1.4 to 1.8 mils dry,
- ☐ **Clear Anodize 204 R-1 Class II (AA-C22A31)**(0.4 to 0.7 mil)
- ☐ **Clear Anodize 215 R-1 Class I (AA-C22A41)**(>0.7 mil)
- ☐ **Integral Color Anodize (AA-C22A42)**(>0.7 mil)
  - Clear coat available for all above finishes.
  - Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
  - Kynar® 500 is a registered trademark of Arkema.
  - ALUM\*A\*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
  - ACRA-BOND® ULTRA is a registered trademark of AkzoNobel



**OPTIONAL FLANGE**  
(except R\_ Shapes, 1" optional std)



**EXTENDED SILL (Standard)**



**OPTIONAL GLAZING ADAPTER**

\*W & H dimensions furnished approximately 1/4" under size.

**MODEL RD-4**  
**4" WIND DRIVEN RAIN FIXED LOUVER**

# Model RD-4 Louver Performance Data

## RD-4 Specifications

Furnish and install louver as hereinafter specified where shown on plans or as described in schedules. Louver shall be stationary type with vertical rain resistant style blades positioned on approximately 2" centers within a 4.162" deep frame. Louver frame and blade materials to be .081" thick 6063-T5 extruded aluminum. Sections up to maximum of 60"w x 96"h shall withstand wind loading of 30 lbs per square foot (PSF) (110 mph wind equivalent). Consult factory for welded construction and higher wind speeds. Louver shall have a minimum free area of 6.32 sq. ft. base on the standard 48"w x 48"h test specimen. Louver shall have a maximum static pressure drop of .23" (exhaust) & .31" (intake) water gauge based on 1000 FPM free area intake velocity. Louver shall carry a Class A water penetration classification base on a ventilation air core velocity of 484 FPM at a rainfall rate of 3" per hour and a 29 mph simulated wind velocity. Louver shall carry a class A water penetration classification based on a ventilation core velocity of 201 FPM at a rainfall rate of 8" per hour and a 50 mph simulated wind velocity.

### Wind Driven Rain Performance

Test size 1m x 1m (39"x39") core  
41.5"w x 41"h Nominal (1.05m x 1.04m)

| 75 mm/h (3in/h) Rainfall & 13 m/s (29 mph) Wind Velocity |                                   |                                   |
|----------------------------------------------------------|-----------------------------------|-----------------------------------|
| Ventilation Air Core Velocity m/s (fpm)                  | Water Penetration Effectiveness % | *Water Penetration Classification |
| 0.0 (0)                                                  | 100.0                             | A                                 |
| 0.5 (126)                                                | 100.0                             | A                                 |
| 1.0 (199)                                                | 100.0                             | A                                 |
| 1.5 (291)                                                | 99.9                              | A                                 |
| 2.0 (390)                                                | 99.6                              | A                                 |
| 2.5 (484)                                                | 99.5                              | A                                 |
| 3.0 (587)                                                | 98.6                              | B                                 |
| 3.5 (672)                                                | 89.3                              | C                                 |

\*Classes for maximum allowable water penetrations

| 200 mm/h (8in/h) Rainfall & 32 m/s (50 mph) Wind Velocity |                                   |                                   |
|-----------------------------------------------------------|-----------------------------------|-----------------------------------|
| Ventilation Air Core Velocity m/s (fpm)                   | Water Penetration Effectiveness % | *Water Penetration Classification |
| 0.0 (0)                                                   | 99.9                              | A                                 |
| 0.5 (119)                                                 | 99.8                              | A                                 |
| 1.0 (201)                                                 | 99.4                              | A                                 |
| 1.5 (274)                                                 | 98.5                              | B                                 |
| 2.0 (386)                                                 | 97.1                              | B                                 |
| 2.5 (473)                                                 | 93.8                              | C                                 |
| 3.0 (570)                                                 | 85.4                              | C                                 |
| 3.5 (694)                                                 | 58.3                              | D                                 |

\*Classes for maximum allowable water penetrations

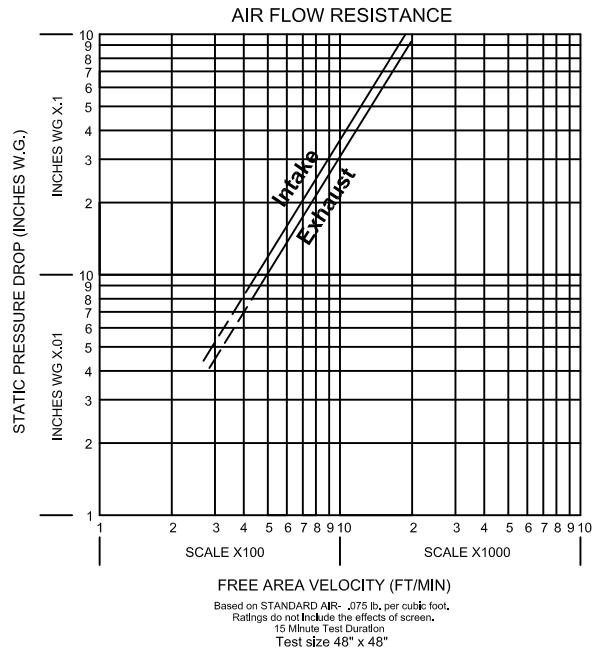
| * Discharge Loss Intake |       |
|-------------------------|-------|
| Wind Velocity (mph)     | Class |
| 29                      | 4     |
| 50                      | 4     |

\* Discharge loss coefficient is the theoretical air flow of an opening divided by the actual flow rate of a louver the same size,

| Class | Discharge Loss Coefficient |
|-------|----------------------------|
| 1     | 0.4 and above              |
| 2     | 0.3 to 0.399               |
| 3     | 0.2 to 0.299               |
| 4     | .0199 and below            |

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

| Wind Driven Rain Penetration Classes |               |
|--------------------------------------|---------------|
| Class                                | Effectiveness |
| A                                    | 1 to 0.99     |
| B                                    | 0.989 to 0.95 |
| C                                    | 0.949 to 0.80 |
| D                                    | Below 0.8     |



## RD-4 FREE AREA CHART (SQUARE FEET)

| Louver Height | Louver Width In Inches |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Louver Height |
|---------------|------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| Inches        | 12                     | 18   | 24   | 30   | 36    | 42    | 48    | 54    | 60    | 66    | 72    | 78    | 84    | 90    | 96    | 102   | 108   | 114   | 120   | Inches        |
| 12            | 0.18                   | 0.29 | 0.40 | 0.51 | 0.62  | 0.73  | 0.84  | 0.95  | 1.05  | 1.16  | 1.27  | 1.38  | 1.49  | 1.60  | 1.71  | 1.82  | 1.93  | 2.04  | 2.15  | 12            |
| 18            | 0.44                   | 0.70 | 0.96 | 1.23 | 1.49  | 1.76  | 2.02  | 2.29  | 2.55  | 2.82  | 3.08  | 3.35  | 3.61  | 3.88  | 4.14  | 4.41  | 4.67  | 4.93  | 5.20  | 18            |
| 24            | 0.63                   | 1.01 | 1.39 | 1.77 | 2.15  | 2.53  | 2.91  | 3.29  | 3.67  | 4.05  | 4.43  | 4.81  | 5.19  | 5.57  | 5.95  | 6.33  | 6.71  | 7.09  | 7.47  | 24            |
| 30            | 0.89                   | 1.43 | 1.97 | 2.52 | 3.06  | 3.60  | 4.14  | 4.68  | 5.22  | 5.77  | 6.31  | 6.85  | 7.39  | 7.93  | 8.47  | 9.02  | 9.56  | 10.10 | 10.64 | 30            |
| 36            | 1.10                   | 1.76 | 2.43 | 3.09 | 3.76  | 4.43  | 5.09  | 5.76  | 6.43  | 7.09  | 7.76  | 8.42  | 9.09  | 9.76  | 10.42 | 11.09 | 11.75 | 12.42 | 13.09 | 36            |
| 42            | 1.26                   | 2.03 | 2.79 | 3.56 | 4.32  | 5.09  | 5.85  | 6.62  | 7.39  | 8.15  | 8.92  | 9.68  | 10.45 | 11.21 | 11.98 | 12.74 | 13.51 | 14.28 | 15.04 | 42            |
| 48            | 1.36                   | 2.19 | 3.02 | 3.84 | 4.67  | 5.50  | 6.32  | 7.15  | 7.98  | 8.81  | 9.63  | 10.46 | 11.29 | 12.11 | 12.94 | 13.77 | 14.59 | 15.42 | 16.25 | 48            |
| 54            | 1.56                   | 2.50 | 3.45 | 4.40 | 5.34  | 6.29  | 7.23  | 8.18  | 9.13  | 10.07 | 11.02 | 11.96 | 12.91 | 13.86 | 14.80 | 15.75 | 16.69 | 17.64 | 18.59 | 54            |
| 60            | 1.82                   | 2.93 | 4.03 | 5.14 | 6.24  | 7.35  | 8.46  | 9.56  | 10.67 | 11.77 | 12.88 | 13.99 | 15.09 | 16.20 | 17.30 | 18.41 | 19.52 | 20.62 | 21.73 | 60            |
| 66            | 2.01                   | 3.23 | 4.45 | 5.67 | 6.89  | 8.12  | 9.34  | 10.56 | 11.78 | 13.00 | 14.22 | 15.44 | 16.66 | 17.88 | 19.11 | 20.33 | 21.55 | 22.77 | 23.99 | 66            |
| 72            | 2.13                   | 3.42 | 4.72 | 6.01 | 7.30  | 8.60  | 9.89  | 11.18 | 12.48 | 13.77 | 15.06 | 16.36 | 17.65 | 18.94 | 20.24 | 21.53 | 22.82 | 24.12 | 25.41 | 72            |
| 78            | 2.27                   | 3.65 | 5.04 | 6.42 | 7.80  | 9.18  | 10.56 | 11.94 | 13.32 | 14.70 | 16.08 | 17.47 | 18.85 | 20.23 | 21.61 | 22.99 | 24.37 | 25.75 | 27.13 | 78            |
| 84            | 2.41                   | 3.87 | 5.33 | 6.80 | 8.26  | 9.72  | 11.18 | 12.65 | 14.11 | 15.57 | 17.03 | 18.50 | 19.96 | 21.42 | 22.88 | 24.35 | 25.81 | 27.27 | 28.74 | 84            |
| 90            | 2.54                   | 4.09 | 5.63 | 7.18 | 8.72  | 10.27 | 11.81 | 13.36 | 14.90 | 16.45 | 17.99 | 19.54 | 21.08 | 22.62 | 24.17 | 25.71 | 27.26 | 28.80 | 30.35 | 90            |
| 96            | 2.73                   | 4.38 | 6.04 | 7.70 | 9.35  | 11.01 | 12.67 | 14.32 | 15.98 | 17.63 | 19.29 | 20.95 | 22.60 | 24.26 | 25.92 | 27.57 | 29.23 | 30.89 | 32.54 | 96            |
| 102           | 2.87                   | 4.61 | 6.36 | 8.10 | 9.85  | 11.59 | 13.33 | 15.08 | 16.82 | 18.57 | 20.31 | 22.05 | 23.80 | 25.54 | 27.29 | 29.03 | 30.77 | 32.52 | 34.26 | 102           |
| 108           | 2.98                   | 4.80 | 6.61 | 8.42 | 10.24 | 12.05 | 13.86 | 15.68 | 17.49 | 19.30 | 21.12 | 22.93 | 24.74 | 26.55 | 28.37 | 30.18 | 31.99 | 33.81 | 35.62 | 108           |
| 114           | 3.09                   | 4.97 | 6.84 | 8.72 | 10.60 | 12.48 | 14.35 | 16.23 | 18.11 | 19.99 | 21.86 | 23.74 | 25.62 | 27.50 | 29.37 | 31.25 | 33.13 | 35.01 | 36.88 | 114           |
| 120           | 3.22                   | 5.18 | 7.13 | 9.09 | 11.05 | 13.00 | 14.96 | 16.92 | 18.87 | 20.83 | 22.78 | 24.74 | 26.70 | 28.65 | 30.61 | 32.57 | 34.52 | 36.48 | 38.44 | 120           |