

Drainable / Sightproof Louver in 4" thick frame design – Model DEM- 04

Features – Drainable Blade vision proof design.

STANDARD CONSTRUCTION

All MATERIAL-EXTRUDED ALUMINUM 6063-TS (KB-45)

FRAME

DEM- 04" thick, is .081" Extruded aluminum in style #3

BLADES

DEM- 04", are.081" Extruded aluminum Sightproof, approx. spacing is 2"

MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others

MAXIMUM SINGLE SECTION

120"w x 84"H or 84"w x 120"H

(allows for best handling)

(Type of finish required may limit max single section size)

MULLIONS

Invisible

MINIMUM SIZE

12" W x 12" H

UNDERSIZED

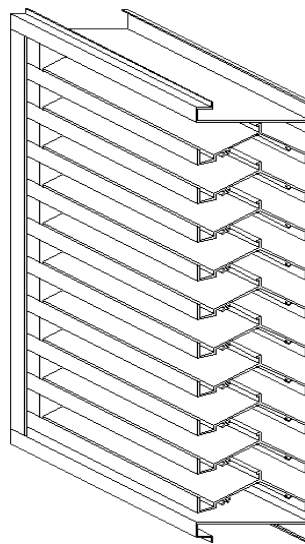
1/4" under ordered size unless specified Exact or Actual

SCREEN

3/4" .051" Flattened expanded aluminum bird screen no frame

FINISH

Mill



PERFORMANCE

Point of Water Penetration
1100 fpm

Free Area
48 x 48 section
57%

OPTIONAL CONSTRUCTION

FRAME – Available in a heavier extrusion of .125"

BLADES - Available in a heavier extrusion of .125"

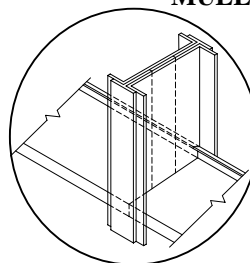
SCREENS - Many styles available please consult screen listing

MULLIONS – Visible for architectural preference

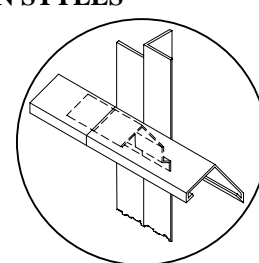
FINISH – Air-dry primer, polyurethane, epoxy, or enamel. Baked epoxy or enamel.

Anodize or Kynar (Kynar limitations on steel.)

MULLION STYLES



Visible



Invisible

SPECIAL PURPOSE CONSTRUCTION

Fully welded assembly

Security bars

Filter racks

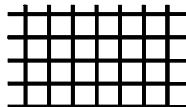
Hinged as walk through door or for swing out access

Sleeved for ductwork connection

TYPICAL SCREEN STYLE

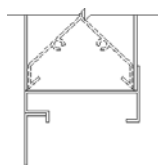


Expanded Aluminum Standard

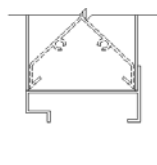


Wire Mesh Standard

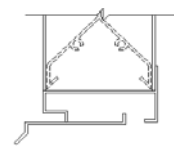
FRAME STYLES



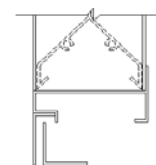
1- Flange (1.5'')



3 - Box



8- Box with Sill Extension



9 - Flange with Sub Frame

| | | | | |
|---------|-----------|---|---|-------------|
| DATE | ARCHITECT | | | ENGINEER |
| PROJECT | | | | |
| ITEM | QTY | W | H | DESCRIPTION |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DEPENDABLE PRODUCTS SINCE 1955

SAFE-AIR OF ILLINOIS INC.

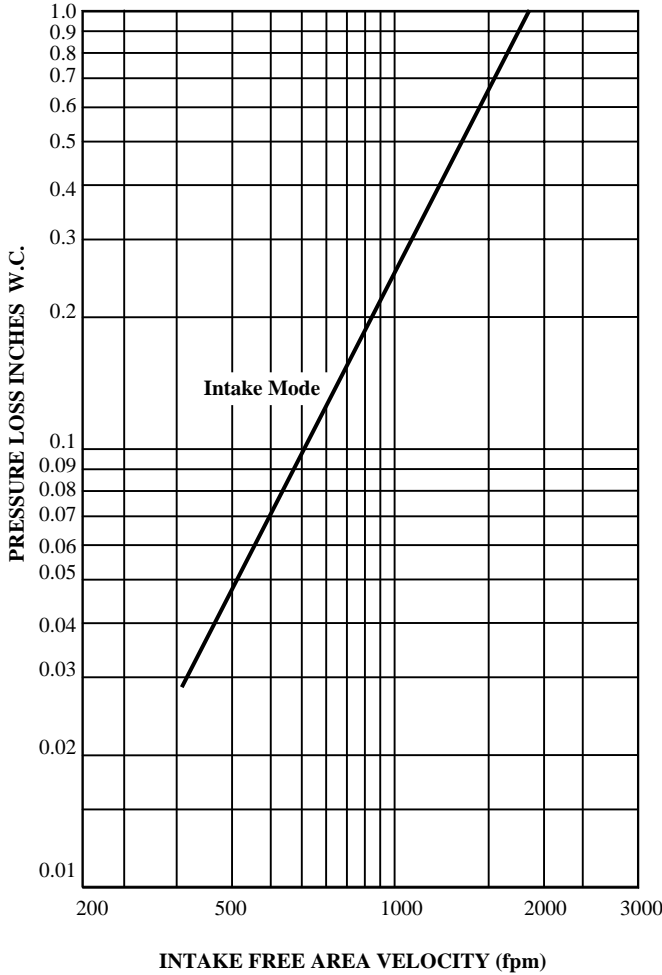
Engineering and General Offices

1855 South 54th Avenue, Cicero, Illinois 60804

Phone 708-652-9100 FAX 708-652-9158

All tests performed at an independent laboratory and based on AMCA standard 511 – 91 for air performance and water penetration.

AIR PERFORMANCE



CALCULATING PRESSURE LOSS

Based upon a given flow rate (in CFM), the flowing pressure loss may be determined from the “air performance” graph, knowing the sq. ft. of free area of the louver. Alternately, the free area may be determined based upon a volumetric flow rate and a maximum pressure loss. Utilizing the “air performance” graph.

_____ in. W.C. Max. Pressure Loss Intake or Exhaust

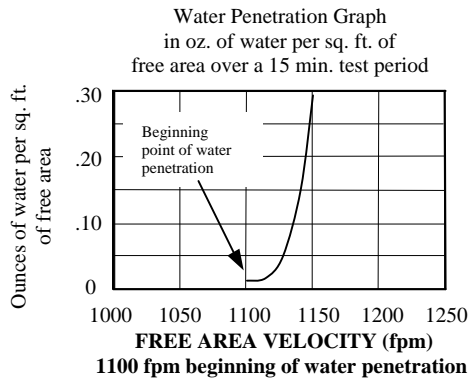
_____ FPM (Free Area Velocity From “Air Performance” Graph)

_____ CFM / _____ FPM Free Area Velocity = _____ Sq. Ft. Free Area

CALCULATING MAXIMUM AIRFLOW BEFORE WATER PENETRATION

The “free area flow rate” at which water penetration commences (.01 oz. of water) is established at, 1100 fpm for DEM-04, and will vary depending upon actual weather conditions. The “water penetration” graph illustrates the results of actual laboratory test on a 48” x 48” (1219 x 1219) test sample subjected to hypothetical rainfall conditions. To determine the free area (in sq. ft.) based on upon a known volumetric flow rate in CFM;

_____ CFM / _____ FPM = _____ SQ. FT. FREE AREA
(System Requirements)



WIND DRIVEN RAIN PERFORMANCE

This test was produced on a wind velocity of 29 mph (13 m/s) directly at the face of the louver, with a rainfall rate of 3” per hour (75 mm/hr). The data illustrates the water penetration effectiveness rating at their given ventilation rate.

| Ventilation Air Velocity (m/s) | 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 |
|-------------------------------------|--------------|-----|------------------|-----|-----|------------------|-----|------|--------------|------|------|
| Core Ventilation Rate (ft/min) | 0 | 131 | 195 | 288 | 381 | 475 | 560 | 680 | 778 | 864 | 989 |
| Free Area Ventilation Rate (ft/min) | 0 | 290 | 431 | 600 | 720 | 865 | 998 | 1155 | 1299 | 1455 | 1967 |
| Rating Effectiveness | A | A | A | A | A | A | A | A | A | B | C |
| Effectiveness Rating | A = 1 - 0.99 | | B = 0.989 - 0.95 | | | C = 0.949 - 0.80 | | | D = 0.80 - 0 | | |

FREE AREA CALCULATIONS IN SQ. FT.

WIDTH

| Inches | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 |
|--------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 12 | 0.34 | 0.59 | 0.85 | 1.10 | 1.35 | 1.61 | 1.86 | 2.11 | 2.37 | 2.73 | 2.98 | 3.23 | 3.49 | 3.74 | 3.99 | 4.25 | 4.50 | 4.76 | 5.01 |
| 18 | 0.55 | 0.97 | 1.38 | 1.80 | 2.21 | 2.63 | 3.04 | 3.45 | 3.87 | 4.46 | 4.87 | 5.29 | 5.70 | 6.11 | 6.53 | 6.94 | 7.36 | 7.77 | 8.19 |
| 24 | 0.77 | 1.34 | 1.92 | 2.49 | 3.07 | 3.64 | 4.22 | 4.80 | 5.37 | 6.19 | 6.76 | 7.34 | 7.91 | 8.49 | 9.06 | 9.64 | 10.22 | 10.79 | 11.37 |
| 30 | 0.98 | 1.72 | 2.45 | 3.19 | 3.93 | 4.66 | 5.40 | 6.14 | 6.87 | 7.92 | 8.65 | 9.39 | 10.13 | 10.86 | 11.60 | 12.34 | 13.07 | 13.81 | 14.54 |
| 36 | 1.20 | 2.09 | 2.99 | 3.89 | 4.79 | 5.68 | 6.58 | 7.48 | 8.38 | 9.65 | 10.54 | 11.44 | 12.34 | 13.24 | 14.13 | 15.03 | 15.93 | 16.83 | 17.72 |
| 42 | 1.41 | 2.47 | 3.53 | 4.59 | 5.64 | 6.70 | 7.76 | 8.82 | 9.88 | 11.38 | 12.44 | 13.49 | 14.55 | 15.61 | 16.67 | 17.73 | 18.79 | 19.84 | 20.90 |
| 48 | 1.63 | 2.84 | 4.06 | 5.28 | 6.50 | 7.72 | 9.05 | 10.16 | 11.38 | 13.11 | 14.33 | 15.55 | 16.76 | 17.98 | 19.20 | 20.42 | 21.64 | 22.86 | 24.08 |
| 54 | 1.84 | 3.22 | 4.60 | 5.98 | 7.36 | 8.74 | 10.12 | 11.50 | 12.88 | 14.84 | 16.22 | 17.60 | 18.98 | 20.36 | 21.74 | 23.12 | 24.50 | 25.88 | 27.26 |
| 60 | 2.05 | 3.60 | 5.14 | 6.68 | 8.22 | 9.76 | 11.30 | 12.84 | 14.38 | 16.57 | 18.11 | 19.65 | 21.19 | 22.73 | 24.27 | 25.81 | 27.36 | 28.90 | 30.44 |
| 66 | 2.27 | 3.97 | 5.67 | 7.38 | 9.08 | 10.78 | 12.48 | 14.18 | 15.89 | 18.30 | 20.00 | 21.70 | 23.40 | 25.11 | 26.81 | 28.51 | 30.21 | 31.91 | 33.62 |
| 72 | 2.48 | 4.35 | 6.21 | 8.07 | 9.94 | 11.80 | 13.66 | 15.53 | 17.39 | 20.03 | 21.89 | 23.75 | 25.62 | 27.48 | 29.34 | 31.21 | 33.07 | 34.93 | 36.79 |
| 78 | 2.70 | 4.72 | 6.75 | 8.77 | 10.79 | 12.82 | 14.84 | 16.87 | 18.89 | 21.76 | 23.78 | 25.81 | 27.83 | 29.85 | 31.88 | 33.90 | 35.93 | 37.95 | 39.97 |
| 84 | 2.91 | 5.10 | 7.28 | 9.47 | 11.65 | 13.84 | 16.02 | 18.21 | 20.39 | 23.49 | 25.67 | 27.86 | 30.04 | 32.23 | 34.41 | 36.60 | 38.78 | 40.97 | 43.15 |
| 90 | 3.13 | 5.47 | 7.82 | 10.17 | 12.51 | 14.86 | 17.20 | 19.55 | 21.89 | 25.22 | 27.56 | 29.91 | 32.26 | 34.60 | 36.95 | 39.29 | 41.64 | 43.98 | 46.33 |
| 96 | 3.34 | 5.85 | 8.36 | 10.86 | 13.37 | 15.88 | 18.38 | 20.89 | 23.40 | 26.95 | 29.45 | 31.96 | 34.47 | 36.97 | 39.48 | 41.99 | 44.50 | 47.00 | 49.51 |