

EXTRUDED ALUMINUM LOUVER

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

Visible

MINIMUM SIZE

12" W x 12" H

UNDERSIZED

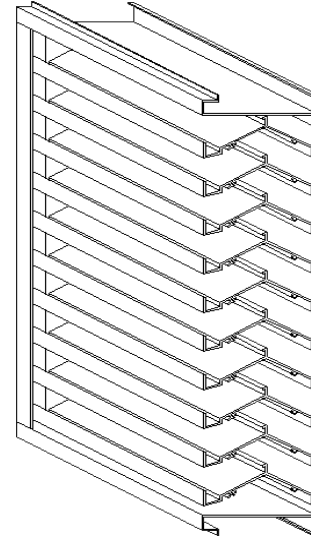
1/4" under ordered size unless specified Exact or Actual

SCREEN

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

FINISH

Mill

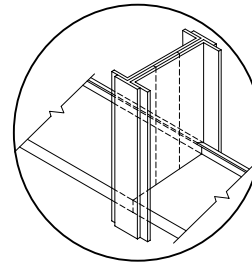


PERFORMANCE

Point of Water Penetration
1100 fpm

Free Area
48 x 48 section
57%

MULLION STYLE



Visible

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.)

SPECIAL PURPOSE CONSTRUCTION

Fully welded assembly

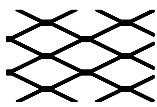
Security bars

Filter racks

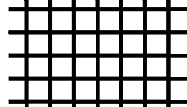
Hinged as walk through door or for swing out access

Sleeved for ductwork connection

TYPICAL SCREEN STYLE

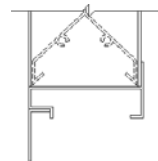


Expanded Aluminum
Standard

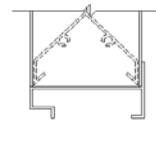


Wire Mesh
Standard

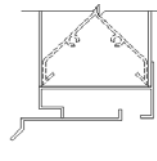
FRAME STYLES



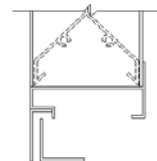
1- Flange (1.5")



3 - Box



8- Box with
Sill Extension



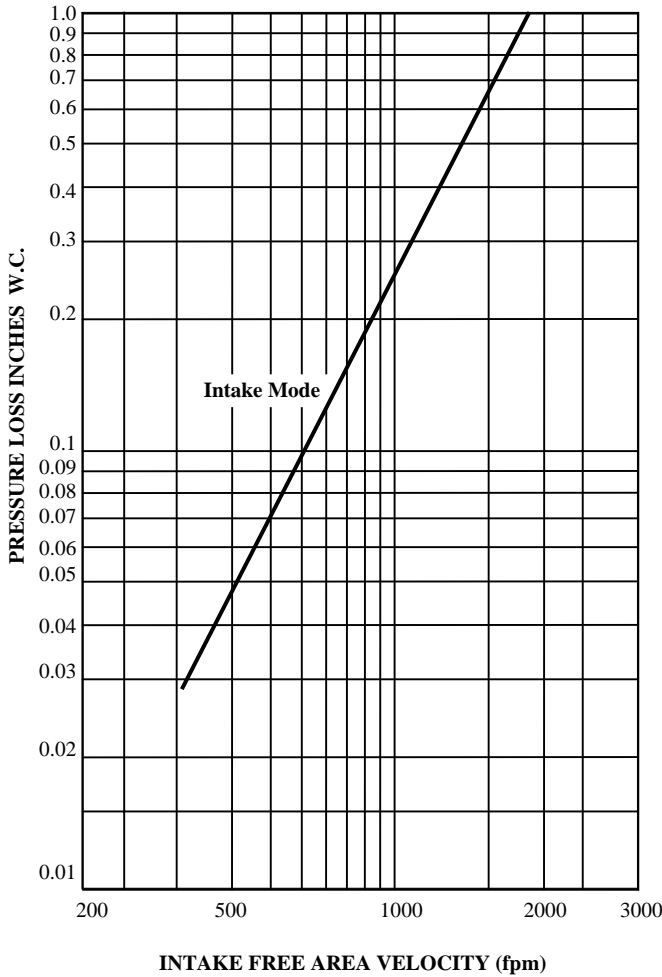
9 - Flange
with Sub Frame

DATE	ARCHITECT			ENGINEER
PROJECT				
ITEM	QTY	W	H	DESCRIPTION

DEM-04 PERFORMANCE SPECIFICATIONS

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

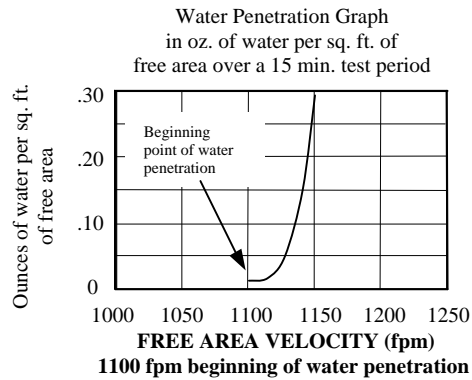
Based upon a given flow rate (in CFM), the flowing pressure loss may be determined from the “air performance” graph, knowing the sq. ft. of free area of the louver. Alternately, the free area may be determined based upon a volumetric flow rate and a maximum pressure loss. Utilizing the “air performance”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



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.

WIND DRIVEN RAIN PERFORMANCE

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