

**Combination Fixed / Adjustable Drainable Blade Louver Model C-DWE-44**

**Design Features** – Traditional straight architectural design with blades fixed at 45° angles. Louver construction conforms to SMACNA and ASHRAE standards.

**STANDARD CONSTRUCTION**

ALL MATERIAL – EXTRUDED ALUMINUM 6063-T5 (KB-45)

**FRAME**

4" Deep, .081" extruded aluminum in style #3

**BLADES**

Fixed – Drainable .081" extruded aluminum @ 4" OC. 45°

Adjustable -.125" thk. tapers to .063 extruded aluminum

**BLADE AXLES & BEARINGS**

Axles – 7/16" plated steel hex

Bearings – 1/2" dia. bronze oilite

**LINKAGE**

Plated steel concealed in jamb

**BLADE & JAMB SEALS**

Vinyl blade and flexible aluminum jamb seals

**MAXIMUM SIZE**

Unlimited, with mullions, structural bracing supplied by others

**MAXIMUM SINGLE SECTION**

48" W x 96"H or 60"W x 96"H (with visible mullion strip)

(Type of finish may limit maximum single section)

**MULLION**

Visible

**MINIMUM SIZE**

12"w x 12"h

**UNDERSIZED**

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

**SCREEN**

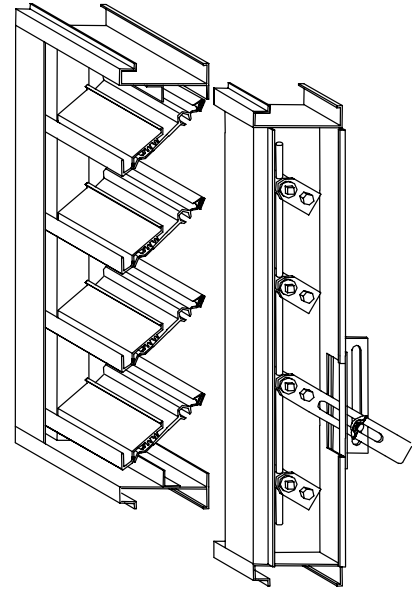
3/4" x .051" flattened expanded aluminum bird screen in frame

**FINISH**

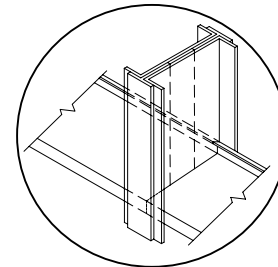
Mill

**OPERATOR**

Wing-nut type adjustable



MULLION STYLE



Visible

PERFORMANCE
Point of Water penetration
<b>980 fpm</b>
Free area
<b>48 x 48 section</b>
<b>54%</b>

**OPTIONAL CONSTRUCTION**

**FRAME** – Available in a heavier extrusion of .125"

**BLADES** - Available in a heavier extrusion of .125"

**JAMB SEALS** – Stainless steel jamb seals

**SCREEN** - Many styles available please consult screen listing

**LINKAGE** – Blade mounted

**FINISH** – Air-dry primer, polyurethane, epoxy, or enamel, baked epoxy or enamel, Kynar, or Powder coat.

**OPERATOR** – Electric or Pneumatic

**SPECIAL PURPOSE CONSTRUCTION**

Security bars

Filter racks

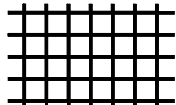
Sleeved for ductwork connection

Jackshaft when required

**TYPICAL SCREEN STYLES**

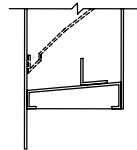


Expanded Aluminum Standard

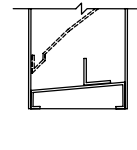


Wire Mesh

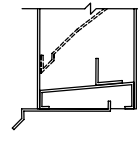
**FRAME STYLES**



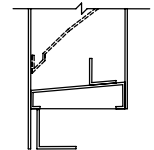
(1) - Flange 1-1/2"



(3) - Box Standard



(8) - Box and Sill Extension



(9) - Flange w/ sub frame

DATE	ARCHITECT			CUSTOMER
PROJECT				
ITEM	QTY	W	H	Description



DEPENDABLE PRODUCTS SINCE 1955

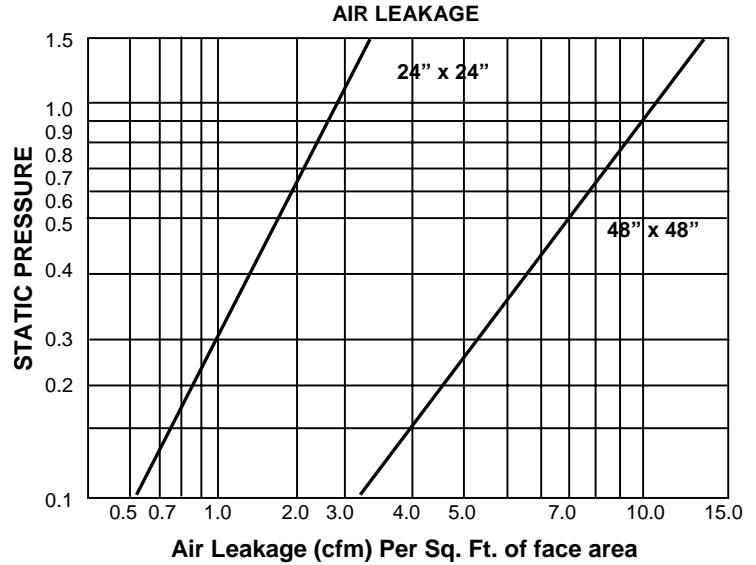
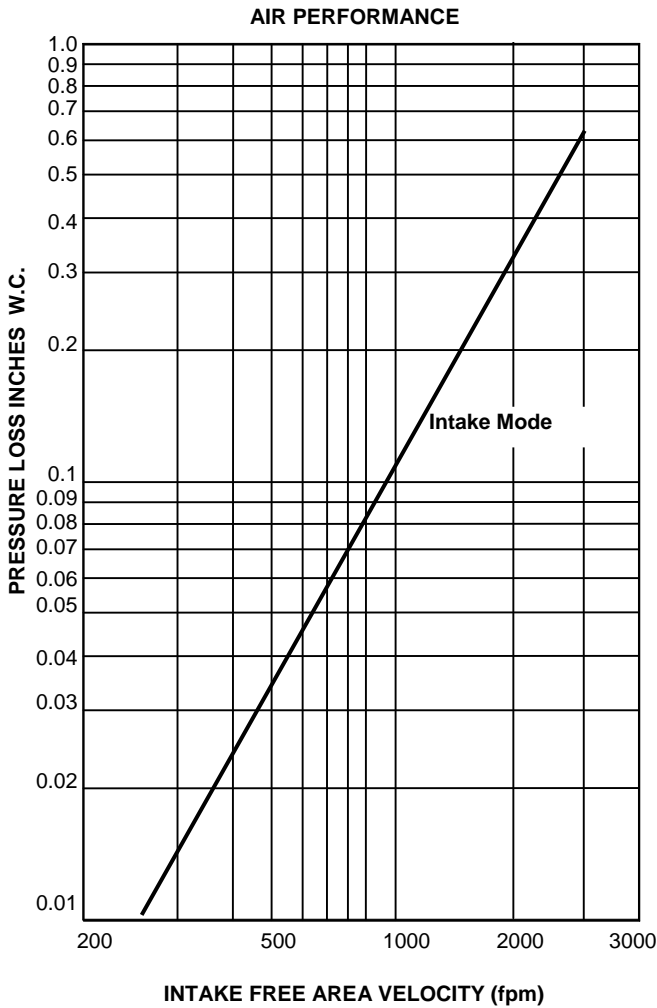
**SAFE-AIR OF ILLINOIS INC.**

Engineering and General Offices

1855 South 54<sup>th</sup> 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.



### 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 980 fpm for C-DWE-44, and will vary depending upon actual weather conditions. The "water penetration" graph illustrates the results of actual laboratory test on a 48" x 48" 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)

### FREE AREA CALCULATIONS IN SQ. FT.

HEIGHT	WIDTH									
	Inches	12	18	24	30	36	42	48	54	60
12	0.27	0.46	0.65	0.84	1.02	1.21	1.40	1.59	1.78	
18	0.48	0.83	1.17	1.51	1.85	2.19	2.53	2.88	3.22	
24	0.72	1.23	1.74	2.25	2.76	3.27	3.78	4.29	4.80	
30	0.94	1.60	2.26	2.92	3.59	4.25	4.91	5.57	6.23	
36	1.18	2.01	2.84	3.67	4.49	5.32	6.15	6.98	7.81	
42	1.39	2.37	3.36	4.34	5.32	6.30	7.29	8.27	9.25	
48	1.63	2.78	3.93	5.08	6.23	7.38	8.53	9.68	10.83	
54	1.85	3.15	4.45	5.75	7.06	8.36	9.66	10.96	12.27	
60	2.08	3.55	5.02	6.49	7.96	9.44	10.91	12.38	13.85	
66	2.30	3.92	5.54	7.17	8.79	10.41	12.04	13.66	15.28	
72	2.54	4.33	6.12	7.91	9.70	11.49	13.28	15.07	16.86	
78	2.75	4.70	6.64	8.58	10.53	12.47	14.41	16.36	18.30	
84	2.99	5.10	7.21	9.32	11.43	13.55	15.66	17.77	19.88	
90	3.21	5.47	7.73	10.00	12.26	14.52	16.79	19.05	21.32	
96	3.44	5.88	8.31	10.74	13.17	15.60	18.03	20.46	22.90	

### Water Penetration Graph

in oz. of water per sq. ft. of free area over a 15 min. test period

.01 .02 .05 .1 .2 .3 (H2O)

980 1000 1080 1120 1160 1170 (fpm)

