

## Combination Fixed / Adjustable Drainable Blade Louver Model C-DWF-46

**Features** – High Performance patented design allowing maximum airflow with minimum outside element or water penetration

### STANDARD CONSTRUCTION

**FRAME**

6" (152) thick, is 18 gauge (1.3) galvanized steel in style #3

**BLADES**

Fixed- Drainable Design 18 gauge (1.3) galv. steel, apx. spacing is 5 3/8" (137) @ 45°  
Adjustable- 16 gauge (1.6) galvanized steel

**BLADES AXLES & BEARINGS**

Axles – 7/16" (11) Planted hex  
Bearings- Bronze Oilite

**LINKAGE**

Concealed in jamb

**BLADE & JAMB SEALS**

Neoprene blade edge & aluminum jamb seals

**MAXIMUM SIZE**

Unlimited, with mullions, structural bracing supplied by others

**MAXIMUM SINGLE SECTION**

60"w x 96"H (1524 x 2438) (Over 60" (1524) wide will have double linkage)

**MULLIONS**

Visible

**MINIMUM SIZE**

12" W x 12" H (305 x 305)

**UNDERSIZED**

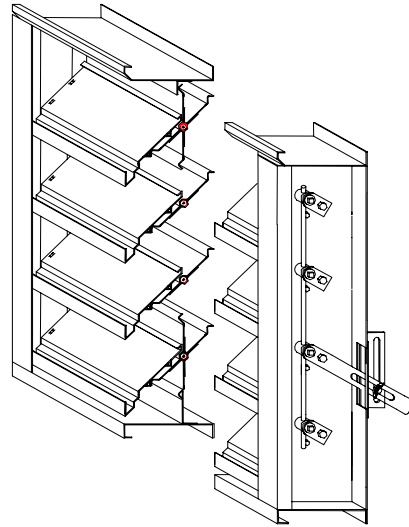
3/8" (10) under ordered size unless specified Exact or Actual

**SCREEN**

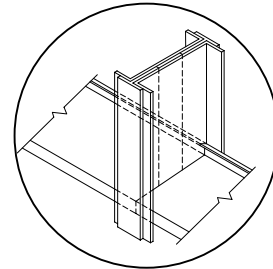
1/2" (13) wire mesh 19 gauge (1.1) galvanized bird screen in frame

**FINISH**

Mill



### MULLION STYLE



**PERFORMANCE**

Point of water penetration  
983 fpm (300)

Free area  
48 x 48 section  
49%

### OPTIONAL CONSTRUCTION

**FRAME** – Available in a heavier construction up to 10 gauge (3.5)

**BLADES** - Available in a heavier construction up to 16 gauge (1.6)

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

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

Kynar ( Kynar limitations on steel).

### SPECIAL PURPOSE CONSTRUCTION

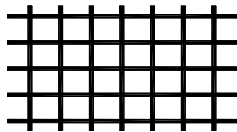
Security bars

Filter racks

Hinged as walk through door or for swing out access

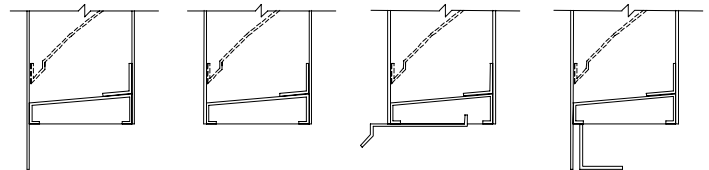
Sleeved for ductwork connection

### TYPICAL SCREEN STYLE



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.**

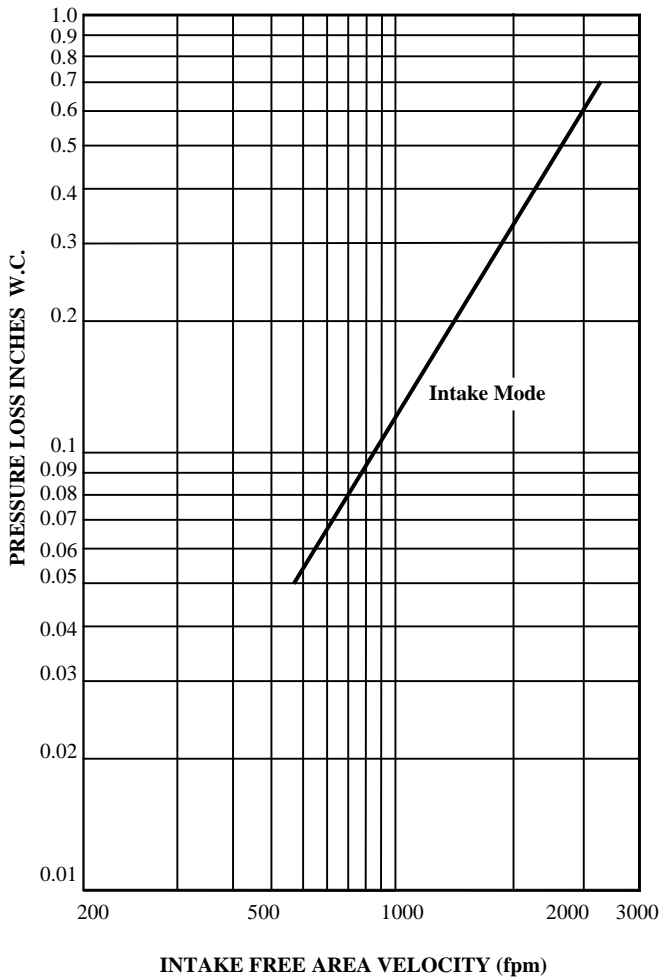
Engineering and General Offices

1855 South 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.

### 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

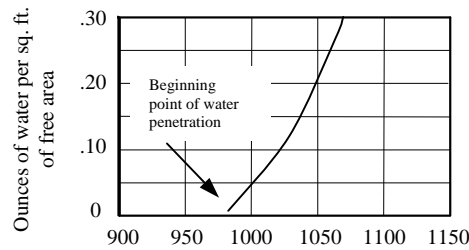
### CALCULATING MAXIMUM AIRFLOW BEFORE WATER PENETRATION

The “free area flow rate” at which water penetration commences (.01 oz. of water) is established at, 983 fpm (300) for C-DWF-46, 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)

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)
	983	999	1021	1037	1054	1063 (fpm)



983 fpm (300) beginning of water penetration

### FREE AREA CALCULATIONS IN SQ. FT.

#### WIDTH

HEIGHT	WIDTH									
	INCHES	12	18	24	30	36	42	48	54	60
12		.26	.42	.57	.73	.89	1.04	1.20	1.35	1.51
18		.52	.83	1.14	1.45	1.76	2.07	2.38	2.69	3.00
24		.74	1.18	1.62	2.07	2.51	2.95	3.39	3.84	4.28
30		.96	1.53	2.11	2.69	3.26	3.84	4.41	4.99	5.56
36		1.18	1.89	2.60	3.31	4.01	4.72	5.43	6.14	6.85
42		1.43	2.29	3.15	4.01	4.87	5.73	6.59	7.45	8.31
48		1.70	2.72	3.73	4.75	5.77	6.79	7.81	8.82	9.84
54		1.96	3.14	4.32	5.49	6.67	7.85	9.02	10.20	11.38
60		2.23	3.56	4.90	6.23	7.57	8.91	10.24	11.58	12.91
66		2.49	3.99	5.48	6.98	8.47	9.97	11.46	12.95	14.45
72		2.73	4.37	6.01	7.64	9.28	10.92	12.56	14.20	15.83
78		2.95	4.72	6.49	8.26	10.03	11.81	13.58	15.35	17.12
84		3.17	5.08	6.98	8.88	10.79	12.69	14.59	16.50	18.40
90		3.40	5.44	7.48	9.52	11.55	13.59	15.63	17.57	19.71
96		3.66	5.86	8.06	10.26	12.45	14.65	16.85	19.05	21.25