

## Adjustable Drainable Blade Louver Model A-DWE-04 & A-DWE-06

**Design Features** – High performance adjustable design variation of our patented drainable blade configuration. Adjustable feature is useful on systems requiring periodic operation or a means of further deterring the outside element of water penetration, which is made possible when the louver is closed.

### STANDARD CONSTRUCTION

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

#### FRAME

.081" extruded aluminum in style #3

#### BLADES

A-DWE-04, (102) are .081" (2.1) extruded aluminum, 45°

A-DWE-06, (152) are .081" (2.1) extruded aluminum, 45°

#### BLADE AXLES & BEARINGS

Axles – 7/16" (11) plated steel hex

Bearings – 1/2" (13) dia. bronze oilite

#### LINKAGE

Plated steel concealed in jamb

#### MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others

#### MAXIMUM SINGLE SECTION

60" W x 96" H (1524 X 2438)

#### MINIMUM SIZE

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

#### MULLION

Visible

#### UNDERSIZED

1/4" (6) under ordered size unless specified Exact or Actual

#### SCREEN

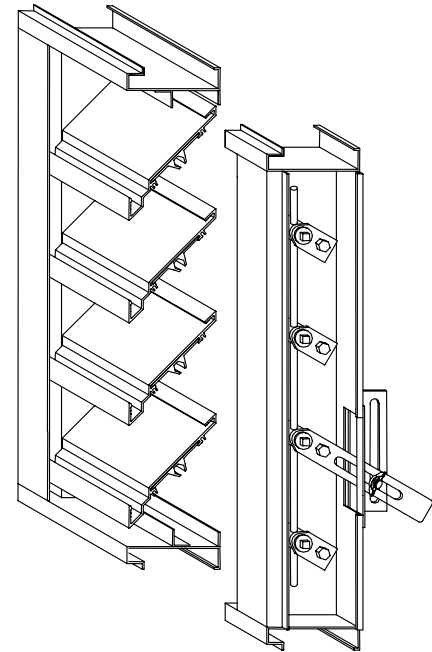
3/4" x .051" (19 x 1.3) flattened expanded aluminum bird screen in frame mounted in the interior side.

#### FINISH

Mill

#### OPERATOR

Standard Manual Operator



### OPTIONAL CONSTRUCTION

**FRAME** – Available in a heavier extrusion of .125" (3.2)

**BLADES** - Available in a heavier extrusion of .125" (3.2)

**BLADES & JAMB SEALS** – Vinyl blade edge and / or flexible metal 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** – Wingnut, Electric or Pneumatic

### SPECIAL PURPOSE CONSTRUCTION

Security bars

Filter racks

Sleeved for ductwork connection

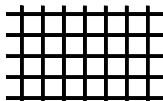
Jackshaft when required

\*\* Consult SAFE-AIR/DOWCO for additional technical information.

### TYPICAL SCREEN STYLES

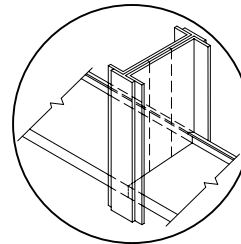


Expanded Aluminum Standard



Wire Mesh

### MULLION STYLE

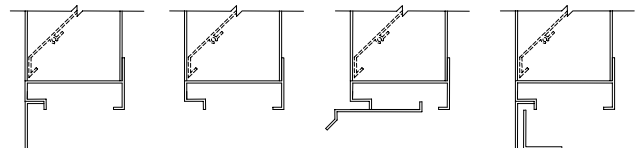


Visible

### PERFORMANCE

PERFORMANCE	
A-DWE 04	Pt. of Water Penetration <b>910 fpm (277)</b>
	Free Area <b>50%</b> 48 x 48 unit size
A-DWE 06	Pt. of Water Penetration <b>939 fpm (286)</b>
	Free Area <b>53%</b> 48 x 48 unit size

### FRAME STYLES



(1) - Flange 1-1/2"

(3) - Box Standard

(8) - Box and Sill Extension

(9) - Flange w/ sub frame

DATE	ARCHITECT/ENGINEER			CUSTOMER
PROJECT				
ITEM	QTY	W	H	DESCRIPTION



DEPENDABLE PRODUCTS SINCE 1955

**SAFE-AIR OF ILLINOIS INC.**

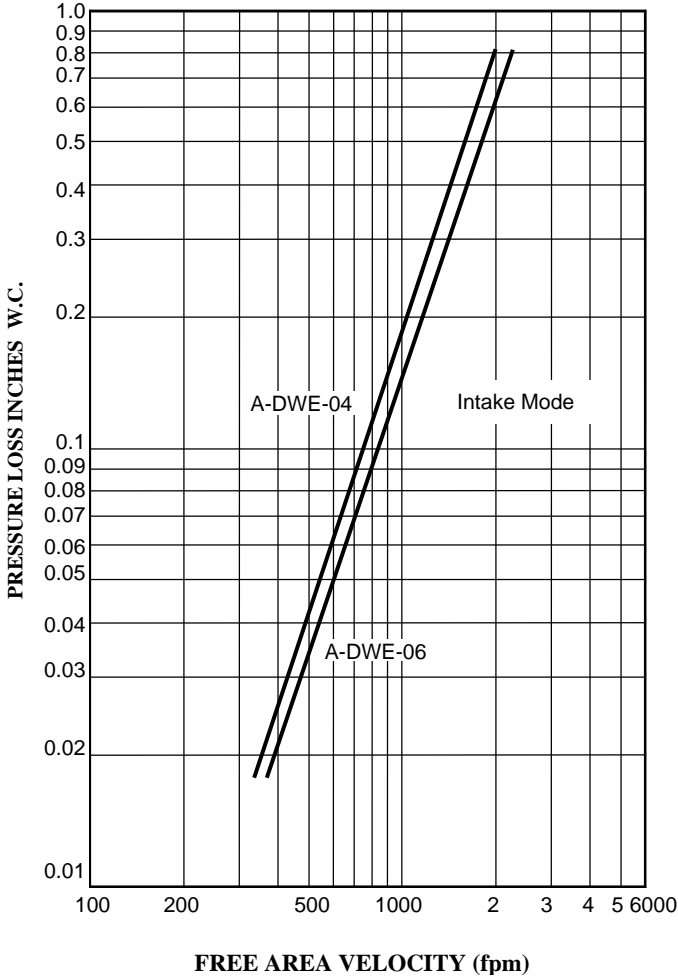
Engineering and General Offices

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 – 500 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 damper. 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 910 (277) fpm for A-DWE-04 and 939 (286) fpm for A-DWE-06, 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)

## FREE AREA CALCULATIONS IN SQ. FT.

		WIDTH								
		12	18	24	30	36	42	48	54	60
12 - 4"	6"	0.24	0.41	0.59	0.76	0.94	1.11	1.29	1.46	1.64
	6"	0.25	0.43	0.61	0.8	0.98	1.16	1.35	1.53	1.71
18 - 4"	6"	0.46	0.8	1.14	1.48	1.83	2.17	2.51	2.85	3.19
	6"	0.47	0.81	1.16	1.5	1.85	2.19	2.54	2.88	3.23
24 - 4"	6"	0.61	1.07	1.52	1.98	2.43	2.89	3.34	3.8	4.25
	6"	0.68	1.18	1.69	2.2	2.7	3.21	3.71	4.22	4.72
30 - 4"	6"	0.84	1.47	2.1	2.73	3.36	3.99	4.62	5.25	5.88
	6"	0.89	1.56	2.22	2.89	3.55	4.22	4.89	5.55	6.22
36 - 4"	6"	1.07	1.86	2.66	3.46	4.25	5.05	5.84	6.64	7.44
	6"	1.11	1.93	2.76	3.58	4.41	5.23	6.06	6.89	7.71
42 - 4"	6"	1.22	2.13	3.04	3.95	4.86	5.77	6.68	7.59	8.5
	6"	1.32	2.31	3.29	4.28	5.26	6.25	7.23	8.22	9.21
48 - 4"	6"	1.45	2.54	3.62	4.71	5.79	6.88	7.96	9.05	10.13
	6"	1.53	2.68	3.82	4.97	6.12	7.26	8.41	9.55	10.7
54 - 4"	6"	1.67	2.92	4.18	5.43	6.68	7.93	9.18	10.43	11.68
	6"	1.75	3.05	4.36	5.66	6.97	8.28	9.58	10.89	12.19
60 - 4"	6"	1.83	3.19	4.56	5.92	7.29	8.65	10.02	11.38	12.75
	6"	1.96	3.43	4.89	6.36	7.82	9.29	10.76	12.22	13.69
66 - 4"	6"	2.06	3.6	5.14	6.68	8.22	9.76	11.3	12.84	14.38
	6"	2.2	3.85	5.49	7.14	8.79	10.43	12.08	13.73	15.37
72 - 4"	6"	2.28	3.99	5.69	7.4	9.11	10.81	12.52	14.23	15.93
	6"	2.44	4.27	6.1	7.93	9.76	11.59	13.42	15.25	17.08
78 - 4"	6"	2.43	4.25	6.07	7.89	9.71	11.53	13.35	15.17	16.99
	6"	2.69	4.7	6.71	8.73	10.74	12.75	14.76	16.78	18.79
84 - 4"	6"	2.67	4.66	6.66	8.65	10.65	12.64	14.64	16.63	18.63
	6"	2.93	5.13	7.32	9.52	11.71	13.91	16.11	18.3	20.5
90 - 4"	6"	2.89	5.05	7.21	9.37	11.53	13.69	15.86	18.02	20.18
	6"	3.18	5.55	7.93	10.31	12.69	15.07	17.45	19.83	22.2
96 - 4"	6"	3.04	5.31	7.59	9.86	12.14	14.42	16.69	18.97	21.24
	6"	3.39	5.93	8.47	11.02	13.56	16.1	18.64	21.18	23.72

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

