

Drainable Blade Louver in 4" thick frame design – Model DWF- 04

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

STANDARD CONSTRUCTION

FRAME

DWF- 04" (102) thick, is 20 gauge (1.0) galvanized steel in style #3

BLADES

DWF- 04", (102) are 20 (1.0) gauge galv. steel, approx. spacing is 4-1/2" (114) @ 45°

FASTENERS

Steel pop rivets exposed to view

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)

MULLIONS

Visible

MINIMUM SIZE

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

UNDERSIZED

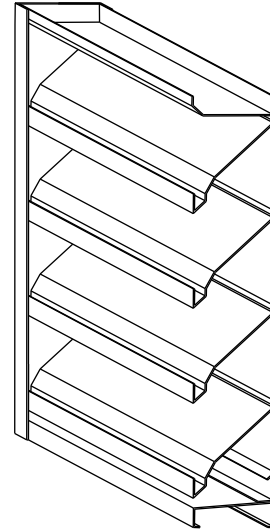
3/8" (10) under ordered size unless specified Exact or Actual

SCREEN

1/2" (13) wire mesh 19 gauge (1.1) galvanized bird screen no frame

FINISH

Mill



PERFORMANCE
Point of water penetration 1094 fpm (333)
Free area 48 x 48 section 51%

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)

SPECIFIED MATERIAL – Aluminum, Stainless or as requested

SCREENS - Many styles available please consult screen listing

MULLIONS – Invisible please consult factory

FINISH – Air-dry primer, polyurethane, epoxy, or enamel. Baked epoxy or enamel. Kynar (Kynar limitations on steel.)

SPECIAL PURPOSE CONSTRUCTION

Special shapes; Triangle, Trapezoid, etc.

Fully welded assembly

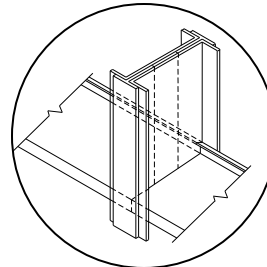
Security bars

Filter racks

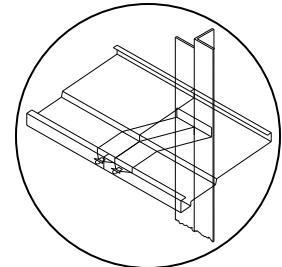
Hinged as walk through door or for swing out access

Sleeved for ductwork connection

MULLION STYLES

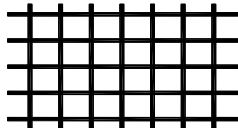


Visible



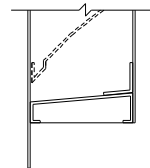
Invisible

TYPICAL SCREEN STYLE

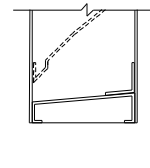


Wire Mesh Standard

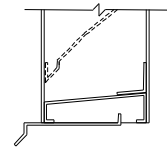
FRAME STYLES



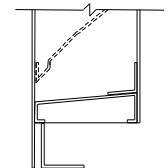
1- Flange (1.5")



3 – Box



8- Box with Sill Extension



9 - Flange with Sub Frame

DATE	ARCHITECT	ENGINEER	
PROJECT			
ITEM	QTY	WIDTH	HEIGHT

AMCA
WORLDWIDE
CERTIFIED
RATINGS

WATER
PENETRATION
RATINGS

AIR
PERFORMANCE

AIR
MOVEMENT
AND CONTROL
ASSOCIATION
INTERNATIONAL, INC.®

SAFE-AIR / DOWCO certifies that the DWF-04 louver shown herein are licensed to bear the AMCA Seal. The Ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings and water penetration ratings. Test Information Tested in accordance with ANSI/AMCA 500-L, Figure 5.5 Test sample size is 48 in. x 48 in. (1220 mm x 1220 mm) Air Performance data based on intake performance.

DEPENDABLE PRODUCTS SINCE 1955

SAFE-AIR OF ILLINOIS INC.

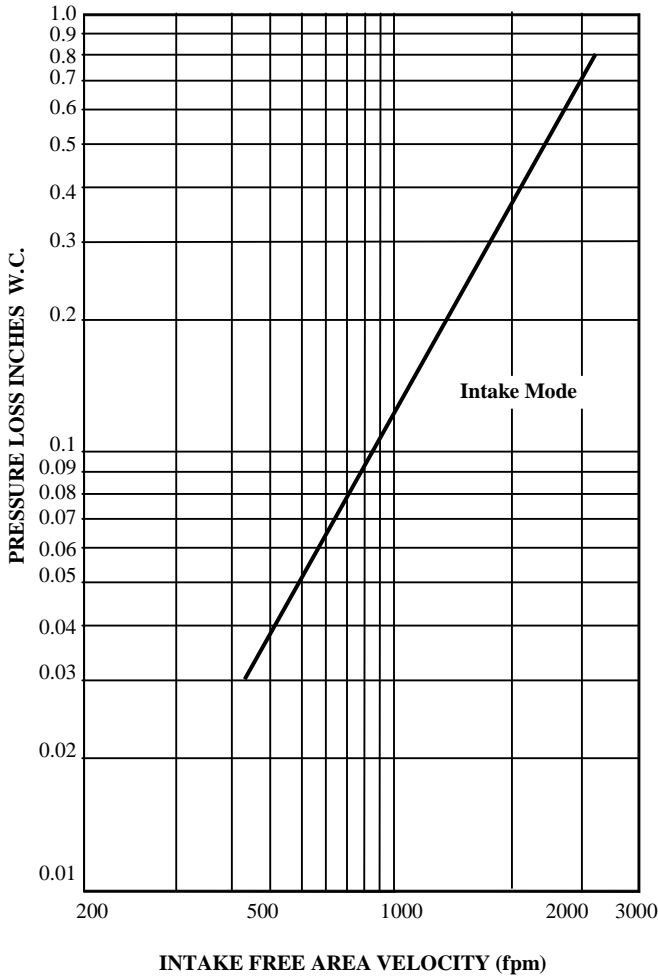
Engineering and General Offices

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

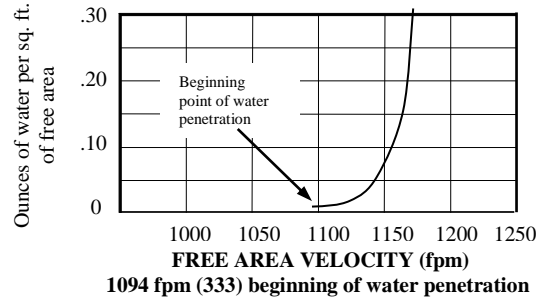
CALCULATING MAXIMUM AIRFLOW BEFORE WATER PENETRATION

The “free area flow rate” at which water penetration commences (.01 oz. of water) is established at, 1094 fpm (251) for DWF-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)

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

Free Area Velocity (fpm)	.01	.02	.05	.1	.2	.3 (H2O)
1094	0.01	0.02	0.05	0.1	0.2	0.3



FREE AREA CALCULATIONS IN SQ. FT.

HEIGHT	WIDTH																			
	Inches	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
12	0.28	0.47	0.66	0.85	1.04	1.23	1.42	1.61	1.80	2.02	2.21	2.40	2.59	2.78	2.97	3.16	3.35	3.54	3.73	
18	0.49	0.81	1.14	1.47	1.79	2.12	2.44	2.77	3.09	3.47	3.80	4.13	4.45	4.78	5.10	5.43	5.76	6.08	6.41	
24	0.70	1.17	1.63	2.10	2.57	3.03	3.50	3.97	4.44	4.98	5.45	5.91	6.38	6.85	7.31	7.78	8.25	8.71	9.18	
30	0.97	1.61	2.26	2.91	3.55	4.20	4.84	5.49	6.14	6.89	7.54	8.18	8.83	9.47	10.12	10.76	11.41	12.06	12.70	
36	1.14	1.90	2.66	3.42	4.18	4.94	5.70	6.46	7.22	8.11	8.87	9.63	10.39	11.15	11.91	12.67	13.43	14.19	14.95	
42	1.38	2.31	3.23	4.15	5.08	6.00	6.92	7.84	8.77	9.84	10.77	11.69	12.61	13.54	14.46	15.38	16.30	17.23	18.15	
48	1.63	2.71	3.80	4.89	5.97	7.06	8.14	9.23	10.32	11.58	12.67	13.76	14.84	15.93	17.01	18.10	19.18	20.27	21.36	
54	1.80	3.00	4.20	5.40	6.60	7.80	9.00	10.20	11.40	12.80	14.00	15.20	16.40	17.60	18.80	20.00	21.20	22.40	23.60	
60	2.07	3.45	4.83	6.21	7.58	8.96	10.34	11.72	13.10	14.71	16.09	17.47	18.85	20.22	21.60	22.98	24.36	25.74	27.12	
66	2.28	3.80	5.32	6.84	8.36	9.88	11.40	12.92	14.44	16.22	17.74	19.26	20.78	22.30	23.82	25.34	26.86	28.38	29.90	
72	2.48	4.14	5.80	7.45	9.11	10.76	12.42	14.08	15.73	17.66	19.32	20.98	22.63	24.29	25.94	27.60	29.26	30.91	32.57	
78	2.75	4.59	6.42	8.26	10.09	11.93	13.76	15.60	17.43	19.57	21.41	23.24	25.08	26.91	28.75	30.58	32.42	34.25	36.09	
84	2.93	4.89	6.84	8.80	10.75	12.71	14.66	16.61	18.57	20.85	22.80	24.76	26.71	28.67	30.62	32.58	34.53	36.49	38.44	
90	3.17	5.28	7.39	9.50	11.62	13.73	15.84	17.95	20.06	22.53	24.64	26.75	28.86	30.98	33.09	35.20	37.31	39.42	41.54	
96	3.42	5.70	7.98	10.26	12.54	14.82	17.10	19.38	21.66	24.32	26.61	28.89	31.17	33.45	35.73	38.01	40.29	42.57	44.85	