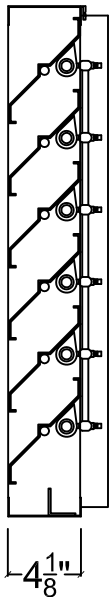


## Application and Design

SAFL-4 is a louver designed to protect air intake and exhaust openings in building exterior walls. Design incorporates J style blades and high free area to provide maximum resistance to rain and weather while providing minimum resistance to airflow.

### STANDARD CONSTRUCTION:



#### FRAME:

18 ga. galvanized steel, 4" deep

#### BLADES:

J style, 18 ga. galvanized steel, positioned at 45° angles on approximately 4" centers.

#### BIRDSCREEN:

1/2" x .050" Expanded flattened alum. in removable frame. Screen is mounted on inside (rear)

#### FINISH:

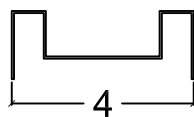
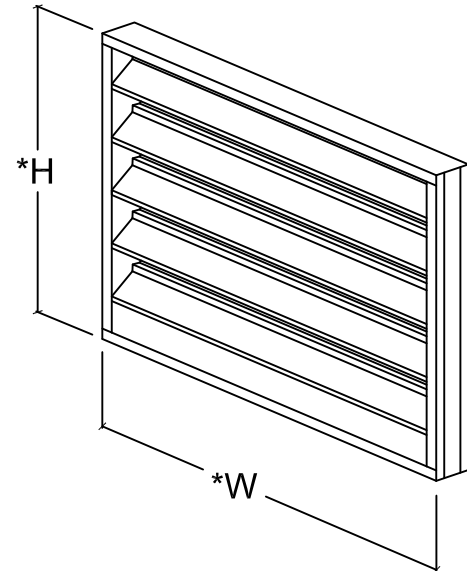
mill galvanized

#### MINIMUM SIZE:

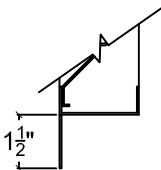
8"w x 10"h

#### MAXIMUM SECTION SIZE:

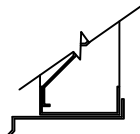
48"w x 72"h  
 Larger sizes made in multiple sections.



Typical Jamb



Optional Flange



Optional Extended Sill

### OPTIONS (at additional cost)

- Flanged frame
- Blade Seals
- Jamb Seals
- Extended sill
- A variety of bird and insect screens
- A variety of architectural finishes including:
  - Baked Powder Polyester
  - Baked Powder Fluoropolymer 70%
  - Baked Powder Clear Coat
- Heavier gauge construction
- Stainless steel construction
- Filter racks
- Security bars

\*W & H dimensions furnished approximately 1/4" under size.

Job Name:

Location:

Architect:

Engineer:

Contractor:

### MODEL SAFL-4

DRAWN BY:

TBL

DATE:

03-12-08

REV. DATE:

11-25-08

REV. NO.

2

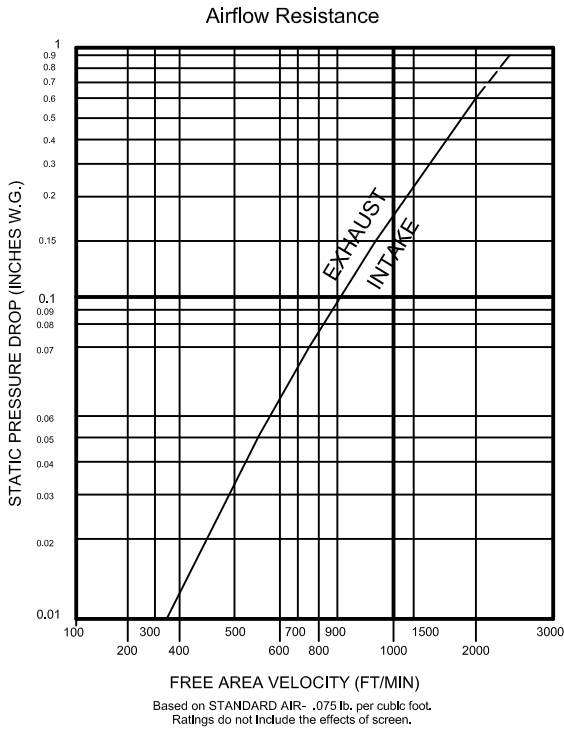
APPROVED BY:

BGT

DWG. NO.:

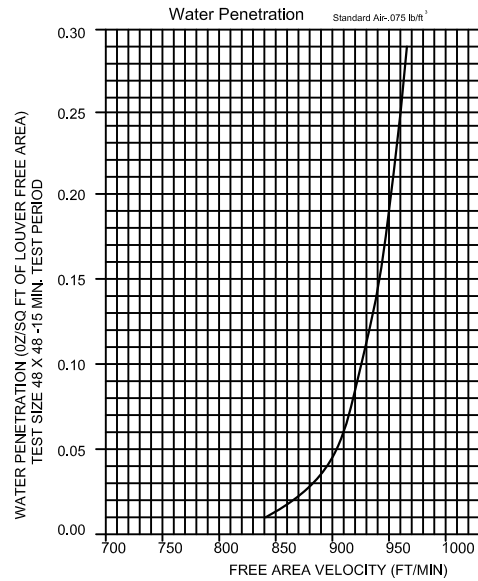
**E-5h**

# SAFL-4 LOUVER PERFORMANCE DATA



Model SAFL-4 resistance to airflow varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information.

Beginning Point of water penetration for Model SAFL-4 is **840 FPM**  
FREE AREA VELOCITY AT .01 OZ. OF WATER



## LOUVER SELECTION AND APPLICATION

Application of any louver involves selecting an airflow velocity through the louver free area (free area velocity in fpm) that produces an acceptable pressure drop and minimizes carry through of normally encountered rain water.

No louver manufacturer warrants their louver to prevent water penetration under all possible combinations of wind and rain. Water penetration through SAFL-4 begins at approximately 840 FPM free area velocity. Intake air louver selection using free area velocity below 840 FPM is recommended. Louver selection involves the following two steps, and depending on air conditions, either step may come first.

### Select Free Area Velocity:

Using the Airflow Resistance Chart, select a free area velocity that produces an acceptable pressure drop with minimal water penetration. (Water penetration need not be considered when selecting exhaust louvers.)

### Determine Louver Free Area:

Using the free area velocity from the previous step and total CFM, determine Louver Free Area required. Using Louver Free Area Chart, select a louver with the required free area. If louver size is given, determine free area from chart and work backwards to determine maximum airflow. See examples below.

### Free Area Chart (square feet):

Louver Height Inches	Louver Width in Inches										Louver Height Inches
	8	12	18	24	30	36	42	48	54	60	
10	0.07	0.11	0.19	0.26	0.34	0.41	0.49	0.56	0.64	0.71	10
12	0.13	0.23	0.38	0.53	0.68	0.83	0.98	1.13	1.28	1.43	12
18	0.23	0.41	0.67	0.93	1.20	1.46	1.73	1.99	2.25	2.52	18
24	0.38	0.67	1.10	1.54	1.97	2.40	2.84	3.27	3.70	4.14	24
30	0.48	0.84	1.39	1.94	2.49	3.04	3.58	4.13	4.68	5.23	30
36	0.63	1.11	1.82	2.54	3.26	3.98	4.69	5.41	6.13	6.85	36
42	0.73	1.28	2.11	2.95	3.78	4.61	5.44	6.27	7.11	7.94	42
48	0.88	1.54	2.55	3.55	4.55	5.55	6.55	7.55	8.56	9.56	48
54	0.98	1.72	2.84	3.95	5.07	6.18	7.30	8.42	9.53	10.65	54
60	1.12	1.98	3.27	4.55	5.84	7.12	8.41	9.70	10.98	12.27	60
66	1.22	2.16	3.56	4.96	6.36	7.76	9.16	10.56	11.96	13.36	66
72	1.37	2.42	3.99	5.56	7.13	8.70	10.27	11.84	13.41	14.98	72
78	1.47	2.60	4.28	5.96	7.65	9.33	11.02	12.70	14.38	16.07	78
84	1.62	2.86	4.71	6.57	8.42	10.27	12.13	13.98	15.83	17.69	84
90	1.72	3.03	5.00	6.97	8.94	10.91	12.87	14.84	16.81	18.78	90
96	1.87	3.30	5.43	7.57	9.71	11.85	13.98	16.12	18.26	20.40	96