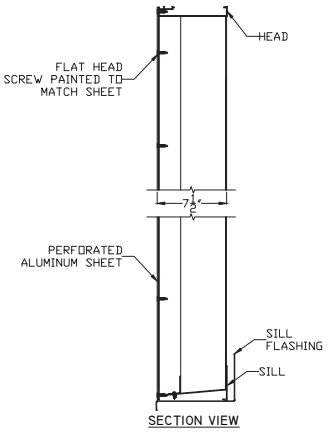
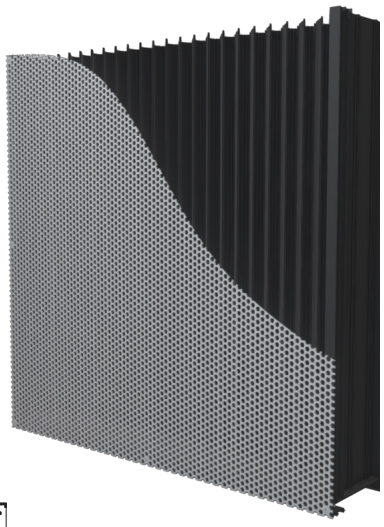
Model PL-5800 - 3/8" (9.53 mm) Hole Pattern 7.5" (190.5 mm) Perforated Vertical Storm Resistant Louver

PATENT PENDING

Material:

Material:	Louver 6063-T6 Alloy Perforated Sheet 3003 H14 aluminum
Nominal Thickness:	Heads, Jambs & Mullions: 0.10" (2.54 mm) Sill 0.08" (2.03 mm)
Nominal Blade Thickness:	0.06" (1.52 mm)
Additional Options (at additional cost):	Rear bird or Insect screen Continuous clip angles for attachment Sheet blank off, Insulated blank off Sill pans, Flange frames Integrated glazing frames





Test Summary:
For a 4 Foot by 4 Foot Unit.

Tested with mill finish and no rear bird or insect screen

- Free area = 7.59 ft² (0.71 m²)
- Percent free area = 47.4%
- Intake pressure drop at 1000 FPM free area velocity = 0.18 in. H_2O (44.7 Pa)
- To maintain a CLASS A (99%) effectiveness rating* with:
  - a 29.1 mph wind speed an rainfall rate of 3 in/hr
    - Max. intake core velocity 5.0 m/s (990 FPM)
    - Max. intake free area velocity 9.9 m/s (1,941 FPM)
  - a 50 mph wind speed and rainfall rate of 8 in/hr
    - Max. intake core velocity 5.0 m/s (987 FPM)
    - Max. intake free area velocity 9.8 m/s (1,936 FPM)

Discharge Coefficient

Intake Cd = 0.30 (Class 2)

Application and Design

Model PL-5800 (3/8" holes) is tested to and passed AMCA 550 High Velocity Wind Driven Rain Resistant Louvers in the fully open position that permits airflow through the louver.

Wind Driven Rain Performance: *Tested with 1m² core area, mill finish and no rear bird or insect screen**

The louver test was based on a 39.370" (1.0 m) x 39.370" (1.0 m) core area unit tested at a rainfall rate of 3" per hour (75 mm/hr) and with a wind directed to the face of the louver at a velocity of 29.1 mph (13 m/s) as well as a rainfall rate of 8" per hour (203 mm) and a wind velocity of 50 mph (23.3 m/s). The test data shall show the water penetration effectiveness rating at each corresponding ventilation rate.

29.1 mph (13 m/s) & 3" (75 mm) rain per hour

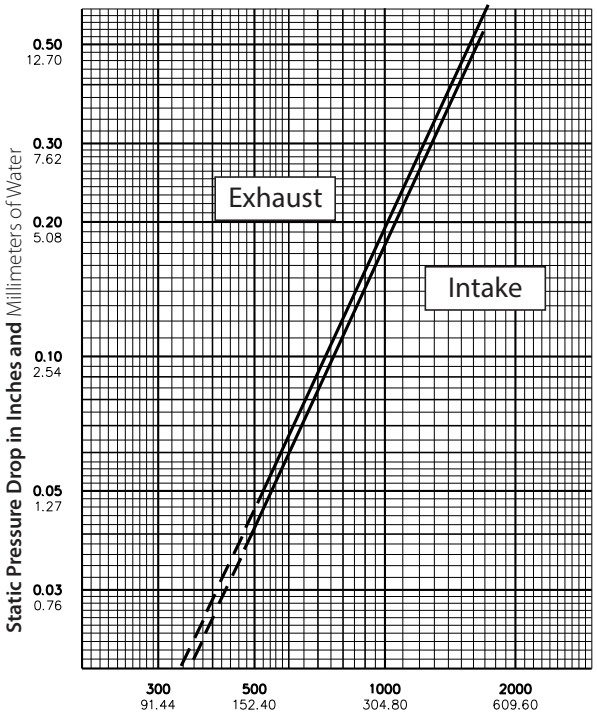
Core Velocity Through Cal. Plate (m/s):	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Core Velocity Through Louver (ft/min):	0	98	197	295	394	492	591	689	799	886	990
Free Area Velocity (ft/min):	0	193	386	579	772	965	1159	1351	1567	1737	1941
Rating Effectiveness:	A	A	A	A	A	A	A	A	A	A	A
Effectiveness Ratio (%):											100

50 mph (22.3 m/s) & 8" (203 mm) rain per hour

Core Velocity Through Cal. Plate (m/s):	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.1	4.5	5.0
Core Velocity Through Louver (ft/min):	0	98	197	295	394	492	591	689	799	895	987
Free Area Velocity (ft/min):	0	193	386	579	772	965	1158	1351	1567	1755	1936
Rating Effectiveness:	A	A	A	A	A	A	A	A	A	A	A
Effectiveness Ratio (%):									99.9	99.8	99.8

Effectiveness Rating:	A = 1 to 0.99	B = 0.989 to 0.95	C = 0.949 to 0.80	D = Below 0.80

Model PL-5800 - 3/8" (9.53 mm) Hole Pattern
7.5" (190.5 mm) Perforated Vertical Storm Resistant Louver



Data corrected to standard air density.
48" x 48" (121.92cm x 121.92cm).

Free Area Table (Free area in **sq. feet** and sq. meters)
For additional sizes, please visit:
https://www.c-sgroup.com/architectural-louvers/louvers-airflow-tool

Width in Inches and Meters

Height in Inches and Meters

	18	**24**	**30**	**36**	**42**	**48**	**54**	**60**
	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
18	**0.92**	**1.24**	**1.56**	**1.88**	**2.21**	**2.53**	**2.80**	**3.12**
0.46	0.09	0.12	0.15	0.18	0.21	0.24	0.26	0.29
24	**1.28**	**1.73**	**2.19**	**2.64**	**3.09**	**3.54**	**3.92**	**4.37**
0.61	0.12	0.16	0.20	0.25	0.29	0.33	0.36	0.41
30	**1.65**	**2.23**	**2.81**	**3.39**	**3.97**	**4.56**	**5.04**	**5.62**
0.76	0.15	0.21	0.26	0.32	0.37	0.42	0.47	0.52
36	**2.01**	**2.73**	**3.44**	**4.15**	**4.86**	**5.57**	**6.16**	**6.87**
0.91	0.19	0.25	0.32	0.39	0.45	0.52	0.57	0.64
42	**2.38**	**3.22**	**4.06**	**4.90**	**5.74**	**6.58**	**7.28**	**8.12**
1.07	0.22	0.30	0.38	0.46	0.53	0.61	0.68	0.75
48	**2.75**	**3.72**	**4.69**	**5.65**	**6.62**	**7.59**	**8.40**	**9.37**
1.22	0.26	0.35	0.44	0.53	0.62	0.71	0.78	0.87
54	**3.11**	**4.21**	**5.31**	**6.41**	**7.51**	**8.61**	**9.52**	**10.62**
1.37	0.29	0.39	0.49	0.60	0.70	0.80	0.88	0.99
60	**3.48**	**4.71**	**5.93**	**7.16**	**8.39**	**9.62**	**10.64**	**11.87**
1.52	0.32	0.44	0.55	0.67	0.78	0.89	0.99	1.10
66	**3.85**	**5.20**	**6.56**	**7.92**	**9.27**	**10.63**	**11.76**	**13.12**
1.68	0.36	0.48	0.61	0.74	0.86	0.99	1.09	1.22
72	**4.21**	**5.70**	**7.18**	**8.67**	**10.16**	**11.64**	**12.88**	**14.37**
1.83	0.39	0.53	0.67	0.81	0.94	1.08	1.20	1.33
78	**4.58**	**6.19**	**7.81**	**9.42**	**11.04**	**12.66**	**14.00**	**15.62**
1.98	0.43	0.58	0.73	0.88	1.03	1.18	1.30	1.45
84	**4.94**	**6.69**	**8.43**	**10.18**	**11.92**	**13.67**	**15.12**	**16.87**
2.13	0.46	0.62	0.78	0.95	1.11	1.27	1.40	1.57
90	**5.31**	**7.18**	**9.06**	**10.93**	**12.81**	**14.68**	**16.24**	**18.12**
2.29	0.49	0.67	0.84	1.02	1.19	1.36	1.51	1.68
96	**5.68**	**7.68**	**9.68**	**11.69**	**13.69**	**15.69**	**17.36**	**19.37**
2.44	0.53	0.71	0.90	1.09	1.27	1.46	1.61	1.80
102	**6.04**	**8.18**	**10.31**	**12.44**	**14.57**	**16.71**	**18.48**	**20.62**
2.59	0.56	0.76	0.96	1.16	1.35	1.55	1.72	1.92
108	**6.41**	**8.67**	**10.93**	**13.19**	**15.46**	**17.72**	**19.60**	**21.86**
2.74	0.60	0.81	1.02	1.23	1.44	1.65	1.82	2.03
114	**6.77**	**9.17**	**11.56**	**13.95**	**16.34**	**18.73**	**20.72**	**23.11**
2.90	0.63	0.85	1.07	1.30	1.52	1.74	1.93	2.15
120	**7.14**	**9.66**	**12.18**	**14.70**	**17.22**	**19.74**	**21.84**	**24.36**
3.05	0.66	0.90	1.13	1.37	1.60	1.83	2.03	2.26

Upper Numerals English Units/Lower Numerals Metric Units

