Construction Specialties™

MODEL RS-4700

C/S 4″(101.6 mm) STORM RESISTANT FIXED HORIZONTAL LOUVER

Construction Specialties Inc. certifies that the louver model RS-4700 shown herein is 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 Wind Driven Rain ratings, Water Penetration Ratings and Air Performance ratings

DESIGN DATA:

*To maintain a **CLASS A (99%) effectiveness** rating*
with a 29.1 mph wind speed an rainfall rate of 3 in/hr

- Maximum intake core velocity 3.0 m/s (600 FPM)
- Maximum intake free area velocity 5.3 m/s (1,049 FPM)

*To maintain a **CLASS A (99%) effectiveness** rating*
with a 50 mph wind speed an rainfall rate of 8 in/hr

- Maximum intake core velocity 1.5 m/s (290 FPM)
- Maximum intake free area velocity 2.6 m/s (507 FPM)

*louver tested with 1m^2 core area, mill finish and no screen

AIRFLOW DATA:

For a 4 Foot by 4 Foot Unit. Tested with mill finish and no screen

- Free area = 8.25 ft^2 (0.77 m2)
- Percent free area = 51.6%
- Free area velocity at the point of beginning water penetration (@0.01oz. / ft^2 of free area based on a 15 minute interval test) = 1,250 FPM (6.35 m/s)
- Maximum recommended air intake velocity = 1,050 FPM (5.3 m/s) Air volume @ 1,050 FPM free area velocity = 8,663 CFM (4.1 m^3/s) Pressure drop @ 1,050 FPM intake velocity = 0.37 in. H_2O (91.2 Pa)
- Maximum recommended air exhaust velocity = 1,357 FPM (6.9 m/s) Air Volume @ 1,357 FPM free area velocity = 11,195 CFM (5.3 m^3/s) Pressure drop @ 11,195 FPM free area velocity = 0.50 in. H_2O (124.2 Pa)

SUGGESTED SPECIFICATIONS:

GENERAL: Furnish and install where indicated on the drawings C/S 4″ (101.6 mm) STORM RESISTANT FIXED HORIZONTAL LOUVER **MODEL RS-4700** as manufactured by Construction Specialties, Inc., Lebanon, NJ. Complete details shall be submitted to the architect for approval prior to fabrication.

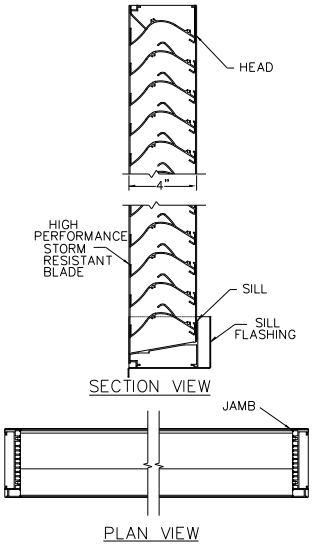
MATERIAL: Frames and blades to be fabricated from 6063-T6 aluminum alloy. Blades to be minimum 0.060" (1.52mm) thick, sill to be minimum 0.070" (1.78 mm) thick, head and jambs to be 0.063"(1.60mm) thick. Louver to be mechanically fastened using stainless steel or aluminum fasteners. Louvers to be supplied with 4″ (101.6 mm) high by full depth sill flashing formed from minimum 0.050″ (1.27 mm) thick aluminum. Sill flashing to have welded side panels. Louvers and sill flashing to be installed in accordance with the manufacturer's recommended procedures to ensure complete water integrity performance of louver system. All louvers to be furnished with 5/8" (15.87 mm) flattened expanded mesh, aluminum bird screen with a .055" (1.4 mm) thick extruded aluminum frame.

STRUCTURAL DESIGN: Structural supports shall be designed and furnished by the louver manufacturer to carry a wind load of not less than _____psf. (kPa). (Note: If this paragraph is omitted or if the design wind load is not specified, the louvers will be manufactured in self-supporting units up to a maximum of 5′ (1524 mm) wide by 8′ (2438 mm) high. Any additional structural supports required to adequately secure these units within the opening shall be the responsibility of others.)

FINISH: All louvers shall be finished with C/S Powder Coat, a coating to be 1.5 to 3 mil. thick full strength **100% resin Fluoropolymer coating. Finish to allow zero VOCs** to be emitted into facility of application. Finish to adhere to a 4H Hardness rating. All finishing procedures shall be one continuous operation in the plant of the manufacturer. **The coating shall meet or exceed all requirements of AAMA specification 2605** "Voluntary Specification for High Performance Organic Coatings on Architectural extrusions and Panels." The louver manufacturer shall supply an industry standard **20-year limited warranty against failure or excessive fading** of the Fluoropolymer Powder Coat finish. This limited warranty shall begin on the date of material shipment.

WIND DRIVEN RAIN PERFORMANCE:

The louver test was based on a 39.370″ (1.00 m) x 39.370″ (1.00 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 29.1 mph (13 m/s) as well as a rainfall rate of 8" per hour (203 mm) and a wind of 50 mph (23.3 m/s). The test data shall show the water penetration effectiveness rating at each corresponding ventilation rate



Discharge Loss Coefficient
Intake Cd = 0.25 **(Class 3)**
AMCA certifies the coefficient class only data corrected to standard air density

Core Ventilation Rate (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 Ventilation Rate (ft/min):	0	132	197	287	377	469	600	684	773	880	985
Free Area Velocity (ft/min):	0	231	344	502	659	820	1049	1195	1351	1538	1721
Rating Effectiveness @ 29 & 3:	A	A	A	A	A	A	A	B	C	D	D
Effectiveness Ratio @ 29 & 3:					99.6	99.5	99.0	95.7	86.3	78.1	66.4
Core Ventilation Rate (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 Ventilation Rate (ft/min):	0	94	197	290	399	499	570	686	796	879	968
Free Area Velocity (ft/min):	0	164	344	507	697	872	996	1199	1391	1536	1692
Rating Effectiveness @ 50 & 8:	A	A	A	A	B	B	B	C	C	D	D
Effectiveness Ratio @ 50 & 8:		99.4	99.2	99.0	98.4	97.1	95.1	89.5	81.2	75.7	68.5
Effectiveness Rating:	A = 1 to 0.99		B = 0.989 to 0.95		C = 0.949 to 0.80		D = 0.80 to 0				

To download details and specifications visit www.c-sgroup.com. For technical and design assistance call 800-631-7379

PERFORMANCE DATA MODEL RS-4700

Width in Inches and Meters

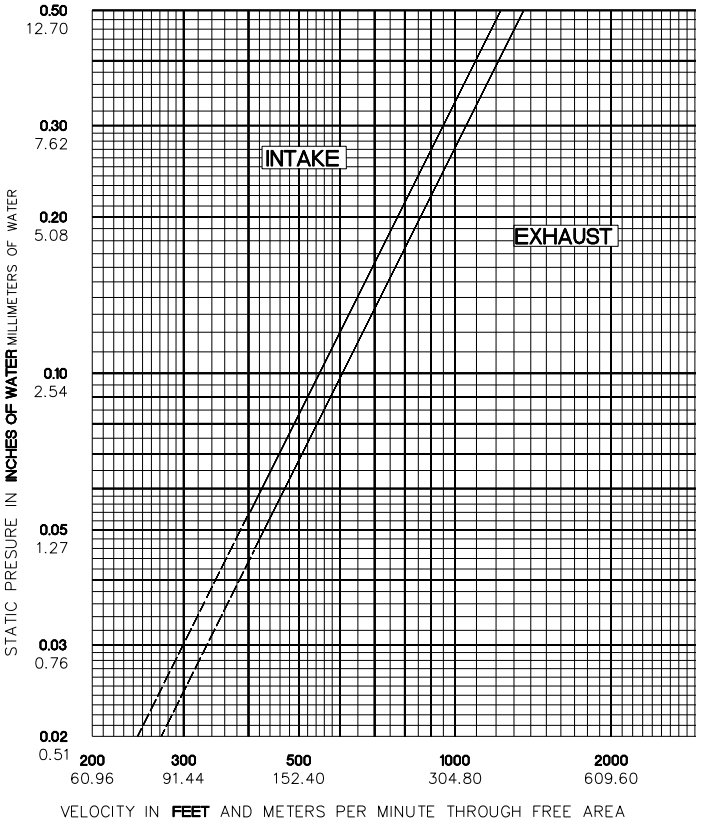
Height in Inches and Meters

	18	24	30	36	42	48	54	60	66	72	78	84	90
	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13	2.29
18	**0.91**	**1.25**	**1.59**	**1.92**	**2.26**	**2.60**	**2.94**	**3.28**	**3.62**	**3.96**	**4.30**	**4.64**	**4.98**
0.46	0.08	0.12	0.15	0.18	0.21	0.24	0.27	0.30	0.34	0.37	0.40	0.43	0.46
24	**1.27**	**1.74**	**2.21**	**2.69**	**3.16**	**3.63**	**4.10**	**4.58**	**5.05**	**5.52**	**6.00**	**6.47**	**6.94**
0.61	0.12	0.16	0.21	0.25	0.29	0.34	0.38	0.43	0.47	0.51	0.56	0.60	0.65
30	**1.69**	**2.32**	**2.95**	**3.58**	**4.21**	**4.84**	**5.47**	**6.10**	**6.73**	**7.36**	**7.99**	**8.62**	**9.25**
0.76	0.16	0.22	0.27	0.33	0.39	0.45	0.51	0.57	0.62	0.68	0.74	0.80	0.86
36	**2.07**	**2.85**	**3.62**	**4.39**	**5.17**	**5.94**	**6.72**	**7.49**	**8.26**	**9.04**	**9.81**	**10.59**	**11.36**
0.91	0.19	0.26	0.34	0.41	0.48	0.55	0.62	0.70	0.77	0.84	0.91	0.98	1.06
42	**2.42**	**3.32**	**4.22**	**5.13**	**6.03**	**6.93**	**7.84**	**8.74**	**9.64**	**10.54**	**11.45**	**12.35**	**13.25**
1.07	0.22	0.31	0.39	0.48	0.56	0.64	0.73	0.81	0.90	0.98	1.06	1.15	1.23
48	**2.88**	**3.95**	**5.03**	**6.10**	**7.18**	**8.25**	**9.33**	**10.40**	**11.48**	**12.55**	**13.63**	**14.70**	**15.78**
1.22	0.27	0.37	0.47	0.57	0.67	0.77	0.87	0.97	1.07	1.17	1.27	1.37	1.47
54	**3.22**	**4.43**	**5.63**	**6.83**	**8.04**	**9.24**	**10.45**	**11.65**	**12.86**	**14.06**	**15.26**	**16.47**	**17.67**
1.37	0.30	0.41	0.52	0.63	0.75	0.86	0.97	1.08	1.19	1.31	1.42	1.53	1.64
60	**3.67**	**5.04**	**6.41**	**7.78**	**9.15**	**10.53**	**11.90**	**13.27**	**14.64**	**16.01**	**17.38**	**18.75**	**20.12**
1.52	0.34	0.47	0.60	0.72	0.85	0.98	1.11	1.23	1.36	1.49	1.61	1.74	1.87
66	**4.03**	**5.53**	**7.04**	**8.54**	**10.05**	**11.55**	**13.06**	**14.56**	**16.07**	**17.57**	**19.08**	**20.59**	**22.09**
1.68	0.37	0.51	0.65	0.79	0.93	1.07	1.21	1.35	1.49	1.63	1.77	1.91	2.05
72	**4.45**	**6.11**	**7.77**	**9.43**	**11.10**	**12.76**	**14.42**	**16.08**	**17.75**	**19.41**	**21.07**	**22.73**	**24.39**
1.83	0.41	0.57	0.72	0.88	1.03	1.19	1.34	1.49	1.65	1.80	1.96	2.11	2.27
78	**4.83**	**6.64**	**8.45**	**10.25**	**12.06**	**13.87**	**15.67**	**17.48**	**19.28**	**21.09**	**22.90**	**24.70**	**26.51**
1.98	0.45	0.62	0.78	0.95	1.12	1.29	1.46	1.62	1.79	1.96	2.13	2.29	2.46
84	**5.18**	**7.11**	**9.05**	**10.98**	**12.92**	**14.86**	**16.79**	**18.73**	**20.66**	**22.60**	**24.53**	**26.47**	**28.40**
2.13	0.48	0.66	0.84	1.02	1.20	1.38	1.56	1.74	1.92	2.10	2.28	2.46	2.64
90	**5.64**	**7.75**	**9.85**	**11.96**	**14.07**	**16.18**	**18.28**	**20.39**	**22.50**	**24.60**	**26.71**	**28.82**	**30.93**
2.29	0.52	0.72	0.92	1.11	1.31	1.50	1.70	1.89	2.09	2.29	2.48	2.68	2.87
96	**5.98**	**8.22**	**10.46**	**12.69**	**14.93**	**17.17**	**19.40**	**21.64**	**23.87**	**26.11**	**28.35**	**30.58**	**32.82**
2.44	0.56	0.76	0.97	1.18	1.39	1.59	1.80	2.01	2.22	2.43	2.63	2.84	3.05
102	**6.43**	**8.84**	**11.24**	**13.64**	**16.05**	**18.45**	**20.85**	**23.25**	**25.66**	**28.06**	**30.46**	**32.87**	**35.27**
2.59	0.60	0.82	1.04	1.27	1.49	1.71	1.94	2.16	2.38	2.61	2.83	3.05	3.28
108	**6.79**	**9.33**	**11.87**	**14.40**	**16.94**	**19.48**	**22.01**	**24.55**	**27.09**	**29.63**	**32.16**	**34.70**	**37.24**
2.74	0.63	0.87	1.10	1.34	1.57	1.81	2.05	2.28	2.52	2.75	2.99	3.22	3.46
114	**7.21**	**9.90**	**12.60**	**15.29**	**17.99**	**20.68**	**23.38**	**26.07**	**28.76**	**31.46**	**34.15**	**36.85**	**39.54**
2.90	0.67	0.92	1.17	1.42	1.67	1.92	2.17	2.42	2.67	2.92	3.17	3.42	3.67
120	**7.60**	**10.43**	**13.27**	**16.11**	**18.95**	**21.79**	**24.63**	**27.46**	**30.30**	**33.14**	**35.98**	**38.82**	**41.66**
3.05	0.71	0.97	1.23	1.50	1.76	2.02	2.29	2.55	2.82	3.08	3.34	3.61	3.87
126	**7.94**	**10.91**	**13.88**	**16.84**	**19.81**	**22.78**	**25.75**	**28.71**	**31.68**	**34.65**	**37.61**	**40.58**	**43.55**
3.20	0.74	1.01	1.29	1.56	1.84	2.12	2.39	2.67	2.94	3.22	3.49	3.77	4.05
132	**8.40**	**11.54**	**14.68**	**17.82**	**20.96**	**24.10**	**27.24**	**30.38**	**33.52**	**36.66**	**39.80**	**42.93**	**46.07**
3.35	0.78	1.07	1.36	1.66	1.95	2.24	2.53	2.82	3.11	3.41	3.70	3.99	4.28
138	**8.75**	**12.02**	**15.28**	**18.55**	**21.82**	**25.09**	**28.36**	**31.63**	**34.89**	**38.16**	**41.43**	**44.70**	**47.97**
3.51	0.81	1.12	1.42	1.72	2.03	2.33	2.63	2.94	3.24	3.55	3.85	4.15	4.46
144	**9.19**	**12.63**	**16.06**	**19.50**	**22.94**	**26.37**	**29.81**	**33.24**	**36.68**	**40.11**	**43.55**	**46.98**	**50.42**
3.66	0.85	1.17	1.49	1.81	2.13	2.45	2.77	3.09	3.41	3.73	4.05	4.36	4.68
150	**9.55**	**13.12**	**16.69**	**20.26**	**23.83**	**27.40**	**30.97**	**34.54**	**38.11**	**41.68**	**45.25**	**48.82**	**52.39**
3.81	0.89	1.22	1.55	1.88	2.21	2.55	2.88	3.21	3.54	3.87	4.20	4.54	4.87
156	**9.97**	**13.70**	**17.43**	**21.15**	**24.88**	**28.60**	**32.33**	**36.06**	**39.78**	**43.51**	**47.24**	**50.96**	**54.69**
3.96	0.93	1.27	1.62	1.97	2.31	2.66	3.00	3.35	3.70	4.04	4.39	4.73	5.08
162	**10.36**	**14.23**	**18.10**	**21.97**	**25.84**	**29.71**	**33.58**	**37.45**	**41.32**	**45.19**	**49.06**	**52.93**	**56.80**
4.11	0.96	1.32	1.68	2.04	2.40	2.76	3.12	3.48	3.84	4.20	4.56	4.92	5.28
168	**10.70**	**14.70**	**18.70**	**22.70**	**26.70**	**30.70**	**34.70**	**38.70**	**42.70**	**46.70**	**50.70**	**54.70**	**58.70**
4.27	0.99	1.37	1.74	2.11	2.48	2.85	3.22	3.60	3.97	4.34	4.71	5.08	5.45
174	**11.16**	**15.34**	**19.51**	**23.68**	**27.85**	**32.02**	**36.19**	**40.36**	**44.54**	**48.71**	**52.88**	**57.05**	**61.22**
4.42	1.04	1.42	1.81	2.20	2.59	2.97	3.36	3.75	4.14	4.53	4.91	5.30	5.69
180	**11.51**	**15.81**	**20.11**	**24.41**	**28.71**	**33.01**	**37.31**	**41.61**	**45.91**	**50.21**	**54.51**	**58.81**	**63.11**
4.57	1.07	1.47	1.87	2.27	2.67	3.07	3.47	3.87	4.27	4.66	5.06	5.46	5.86
186	**11.96**	**16.42**	**20.89**	**25.36**	**29.83**	**34.29**	**38.76**	**43.23**	**47.70**	**52.16**	**56.63**	**61.10**	**65.57**
4.72	1.11	1.53	1.94	2.36	2.77	3.19	3.60	4.02	4.43	4.85	5.26	5.68	6.09
192	**12.32**	**16.92**	**21.52**	**26.12**	**30.72**	**35.32**	**39.92**	**44.53**	**49.13**	**53.73**	**58.33**	**62.93**	**67.53**
4.88	1.14	1.57	2.00	2.43	2.85	3.28	3.71	4.14	4.56	4.99	5.42	5.85	6.27
198	**12.74**	**17.49**	**22.25**	**27.01**	**31.77**	**36.53**	**41.29**	**46.04**	**50.80**	**55.56**	**60.32**	**65.08**	**69.84**
5.03	1.18	1.63	2.07	2.51	2.95	3.39	3.84	4.28	4.72	5.16	5.60	6.05	6.49

Upper Numerals English Units/Lower Numerals Metric Units

Water Penetration Statement

AMCA defines the point of beginning water penetration as the free area velocity at which the AMCA water test has yielded 0.01 or less ounces of water per square foot of louver free area during a 15-minute test period.



For a 48″ X 48″ sized louver tested to figure 5.5.
Data corrected to standard air density.

Construction Specialties, Inc.
Manufacturing & Sales Location
www.c-sgroup.com

To download details and specifications visit www.c-sgroup.com

For assistance with overseas requirements,
call C/S International (908) 236-0800