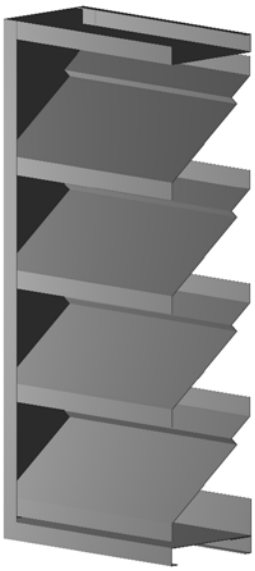
Construction Specialties™

MODEL GS-610

C/S 6" (152.4 mm) STANDARD FIXED GALVANIZED STEEL LOUVER

Construction Specialties Inc. certifies that Model GS-610 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 water penetration and air performance ratings only.



AIRFLOW DATA

For a 4 Foot by 4 Foot Unit

- Free area = 7.01 ft^2 (0.651 m^2)
- Percent Free Area = 43.8%
- Free area velocity at the point of beginning water penetration @ (0.01oz./ft^2) = 1088 FPM (5.53 m/s)
- Maximum recommended air intake velocity = 888 FPM (4.51 m/s)
  Air Volume @ 888 FPM free area velocity = 6225 CFM (2.94 m^3/s)
  Pressure Drop @ 888 FPM intake velocity = 0.11 in. H_2O (27.3 Pa)
- Maximum recommended air exhaust velocity = 1720 FPM (8.74 m/s)
  Air Volume @ 1720 FPM free area velocity = 12057 CFM (5.69 m^3/s)
  Pressure Drop @ 1720 FPM exhaust velocity = 0.50 in. H_2O (124.2 Pa)

SUGGESTED SPECIFICATIONS:

GENERAL: Furnish and install where indicated on the drawings C/S 6" (152.4 mm) STANDARD FIXED GALVANIZED STEEL LOUVER **MODEL GS-610** as manufactured by Construction Specialties, Inc., Cranford, NJ; Mississauga, Ontario. Louvers shall be constructed entirely of galvanized steel. Complete details shall be submitted to the architect for approval prior to fabrication. Supplier must be a member of AMCA or BSRIA

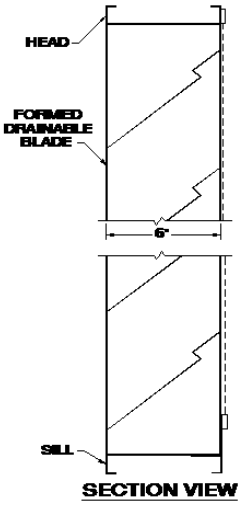
MATERIAL: Heads, sills, jambs, and mullions to be one piece structural members of galvanized steel. Mullions and jambs shall have integral internal drains. Member thicknesses to be any combination of 16 gauge (1.52 mm), 18 gauge (1.21 mm), or 20 gauge (0.91 mm) material. Blades shall be fastened to each jamb frame and vertical member with two fillet welds produced with the Metal Inert Gas (MIG) welding process with a minimum 0.125" (3.18 mm) throat. Frames shall be joined at each corner with a full length MIG filled weld. 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' wide by 8' high. Any additional structural supports required to adequately secure these units within the opening shall be the responsibility of others.

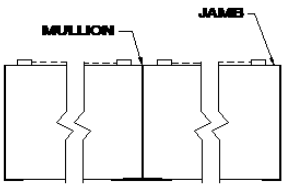
TEST DATA: The Louver Manufacturer shall submit test on a 4'x 4' unit showing that the Louver conforms to the following.

Free Area:	7.01 ft^2 (0.651 m^2)
Free area velocity at point of beginning water penetration (0.01 oz./ft^2):	1088 FPM (5.53 m/s)
Intake pressure drop at 0.01 oz./ft^2 free area velocity:	0.17 in. H_2O (42.2 Pa)
Exhaust pressure drop at 1000 FPM free area velocity (5.08m/s):	0.17 in. H_2O (42.2 Pa)

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.



SECTION VIEW



PLAN VIEW

PERFORMANCE DATA MODEL GS-610

Width in Inches and Meters

Height in Inches and Meters

	12	18	24	30	36	42	48	54	60
	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
18	**0.36**	**0.62**	**0.87**	**1.13**	**1.39**	**1.65**	**1.90**	**2.16**	**2.42**
0.46	0.03	0.06	0.08	0.10	0.13	0.15	0.18	0.20	0.22
24	**0.59**	**0.99**	**1.39**	**1.78**	**2.18**	**2.58**	**2.98**	**3.37**	**3.77**
0.61	0.05	0.09	0.13	0.17	0.20	0.24	0.28	0.31	0.35
30	**0.82**	**1.36**	**1.89**	**2.43**	**2.96**	**3.50**	**4.03**	**4.57**	**5.10**
0.76	0.08	0.13	0.18	0.23	0.27	0.33	0.37	0.42	0.47
36	**1.05**	**1.73**	**2.40**	**3.07**	**3.75**	**4.42**	**5.09**	**5.77**	**6.44**
0.91	0.10	0.16	0.22	0.29	0.35	0.41	0.47	0.54	0.60
42	**1.28**	**2.09**	**2.90**	**3.72**	**4.53**	**5.34**	**6.15**	**6.96**	**7.77**
1.07	0.12	0.19	0.27	0.35	0.42	0.50	0.57	0.65	0.72
48	**1.51**	**2.46**	**3.41**	**4.36**	**5.31**	**6.26**	**7.01**	**8.16**	**9.11**
1.22	0.14	0.23	0.32	0.41	0.49	0.58	0.65	0.76	0.85
54	**1.74**	**2.83**	**3.92**	**5.00**	**6.09**	**7.18**	**8.27**	**9.35**	**10.44**
1.37	0.16	0.26	0.36	0.46	0.57	0.67	0.77	0.87	0.97
60	**1.97**	**3.20**	**4.42**	**5.65**	**6.87**	**8.10**	**9.32**	**10.55**	**11.78**
1.52	0.18	0.30	0.41	0.52	0.64	0.75	0.87	0.98	1.09
66	**2.20**	**3.57**	**4.93**	**6.29**	**7.66**	**9.02**	**10.38**	**11.75**	**13.11**
1.68	0.20	0.33	0.46	0.58	0.71	0.84	0.96	1.09	1.22
72	**2.44**	**3.94**	**5.45**	**6.95**	**8.46**	**9.96**	**11.47**	**12.98**	**14.48**
1.83	0.23	0.37	0.51	0.65	0.79	0.93	1.07	1.21	1.35
78	**2.69**	**4.34**	**5.99**	**7.65**	**9.30**	**10.95**	**12.61**	**14.26**	**15.92**
1.98	0.25	0.40	0.56	0.71	0.86	1.02	1.17	1.32	1.48
84	**2.93**	**4.74**	**6.54**	**8.34**	**10.14**	**11.94**	**13.75**	**15.55**	**17.35**
2.13	0.27	0.44	0.61	0.77	0.94	1.11	1.28	1.44	1.61
90	**3.18**	**5.13**	**7.08**	**9.03**	**10.98**	**12.93**	**14.88**	**16.83**	**18.79**
2.29	0.30	0.48	0.66	0.84	1.02	1.20	1.38	1.56	1.75
96	**3.51**	**5.66**	**7.80**	**9.95**	**12.10**	**14.24**	**16.39**	**18.54**	**20.68**
2.44	0.33	0.53	0.72	0.92	1.12	1.32	1.52	1.72	1.92
102	**3.74**	**6.02**	**8.31**	**10.59**	**12.88**	**15.16**	**17.45**	**19.73**	**22.02**
2.59	0.35	0.56	0.77	0.98	1.20	1.41	1.62	1.83	2.05
108	**3.97**	**6.39**	**8.81**	**11.24**	**13.66**	**16.08**	**18.51**	**20.93**	**23.35**
2.74	0.37	0.59	0.82	1.04	1.27	1.49	1.72	1.94	2.17
114	**4.20**	**6.76**	**9.32**	**11.88**	**14.44**	**17.00**	**19.57**	**22.13**	**24.69**
2.9	0.39	0.63	0.87	1.10	1.34	1.58	1.82	2.06	2.29
120	**4.43**	**7.13**	**9.83**	**12.53**	**15.23**	**17.92**	**20.62**	**23.32**	**26.02**
3.05	0.41	0.66	0.91	1.16	1.41	1.66	1.92	2.17	2.42
126	**4.69**	**7.54**	**10.39**	**13.25**	**16.10**	**18.96**	**21.81**	**24.66**	**27.52**
3.2	0.44	0.70	0.97	1.23	1.50	1.76	2.03	2.29	2.56
132	**4.92**	**7.91**	**10.90**	**13.89**	**16.88**	**19.88**	**22.87**	**25.86**	**28.85**
3.35	0.46	0.73	1.01	1.29	1.57	1.85	2.12	2.40	2.68
138	**5.15**	**8.28**	**11.41**	**14.54**	**17.67**	**20.80**	**23.93**	**27.06**	**30.19**
3.51	0.48	0.77	1.06	1.35	1.64	1.93	2.22	2.51	2.80
144	**5.38**	**8.64**	**11.91**	**15.18**	**18.45**	**21.72**	**24.98**	**28.25**	**31.52**
3.66	0.50	0.80	1.11	1.41	1.71	2.02	2.32	2.62	2.93
150	**5.61**	**9.01**	**12.42**	**15.82**	**19.23**	**22.64**	**26.04**	**29.45**	**32.86**
3.81	0.52	0.84	1.15	1.47	1.79	2.10	2.42	2.74	3.05
156	**5.84**	**9.38**	**12.92**	**16.47**	**20.01**	**23.56**	**27.10**	**30.65**	**34.19**
3.96	0.54	0.87	1.20	1.53	1.86	2.19	2.52	2.85	3.18
162	**6.07**	**9.75**	**13.43**	**17.11**	**20.80**	**24.48**	**28.16**	**31.84**	**35.52**
4.11	0.56	0.91	1.25	1.59	1.93	2.27	2.62	2.96	3.30
168	**6.30**	**10.12**	**13.94**	**17.76**	**21.58**	**25.40**	**29.22**	**33.04**	**36.86**
4.27	0.59	0.94	1.30	1.65	2.00	2.36	2.71	3.07	3.42
174	**6.53**	**10.49**	**14.45**	**18.41**	**22.37**	**26.33**	**30.29**	**34.25**	**38.21**
4.42	0.61	0.97	1.34	1.71	2.08	2.45	2.81	3.18	3.55
180	**6.76**	**10.86**	**14.96**	**19.05**	**23.15**	**27.25**	**31.35**	**35.44**	**39.54**
4.57	0.63	1.01	1.39	1.77	2.15	2.53	2.91	3.29	3.67
186	**6.99**	**11.23**	**15.46**	**19.70**	**23.93**	**28.17**	**32.40**	**36.64**	**40.88**
4.72	0.65	1.04	1.44	1.83	2.22	2.62	3.01	3.40	3.80
192	**7.22**	**11.59**	**15.97**	**20.34**	**24.72**	**29.09**	**33.46**	**37.84**	**42.21**
4.88	0.67	1.08	1.48	1.89	2.30	2.70	3.11	3.52	3.92
198	**7.45**	**11.96**	**16.47**	**20.99**	**25.50**	**30.01**	**34.52**	**39.03**	**43.54**
5.03	0.69	1.11	1.53	1.95	2.37	2.79	3.21	3.63	4.04

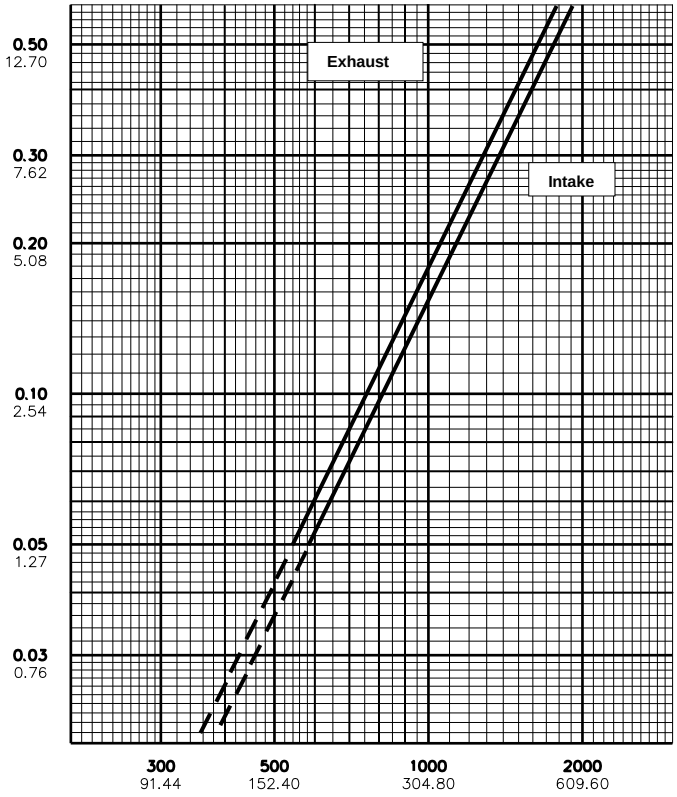
Upper Numerals English Units/Lower Numerals Metric Units

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.

Tests on non-drainable louvers have shown that the point of beginning water penetration for 4 and 6 inch deep louvers usually occurs at between 600 and 800 FPM free area velocity. In addition, the total amounts of water penetration for non-drainable louvers significantly higher in comparison to drainable louvers when intake velocities exceed the 600 to 800 FPM range.

Because of these characteristics, C/S recommends that drainable blade louvers be used for air intake applications whenever water entrainment must be minimized. In addition, we suggest that non-drainable louver air intake velocities be held to 600 FPM through the free area. This will help to limit significant water penetration during times of average rain conditions.



For a 48" x 48" sized louver

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