

C/S Modular Louver Models LS-100, 200, 300 and 400 Location Smart®



The BSRIA Accredited Facility mark indicates that the manufacturer has test apparatus that has been independently assessed as being compliant with the latest edition of the HEVAC specification "Laboratory Testing of Weather Louvers When Subjected to Simulated Rain". Catalog data has not been certified by BSRIA



Construction Specialties, Inc. Manufacturing/Sales Locations

Cranford, NJ 07016
49 Meeker Avenue
Telephone: (800) 631-7379
Fax: (908) 272-2920

Mississauga, Ontario
895 Lakefront Promenade L5E 2C2
Telephone: (888) 895-8955
Fax: (905) 274-6241

www.c-sgroup.com

C/S Location Smart® System

Location Smart® - customized individual solutions to meet exact air, rain, wind load and aesthetic needs.

A Louver System that incorporates an unlimited line of C/S Louvers and Grilles for a custom architectural appearance. Rain defense is accomplished by a wide range of rear weather modules & blank-offs

The rear weather modules provide a superior rain defense that drains to a hidden structural framework. The structural framework collects the rejected water and channels the water, allowing many custom drainage options.

A variety of rear weather module designs allows for 100% rain defense at up to 75 mph and 6" of rain per hour. C/S offers an array of options to meet specific air performance and water defense requirements

U.S Patent 5,906,083

SUGGESTED SPECIFICATIONS:

- GENERAL:** Furnish and install where indicated on the drawings
C/S Model: 4" Airfoil (Front Architectural Unit)/LS-100 (Rear Weather Module).
OR: See next page for additional combinations.

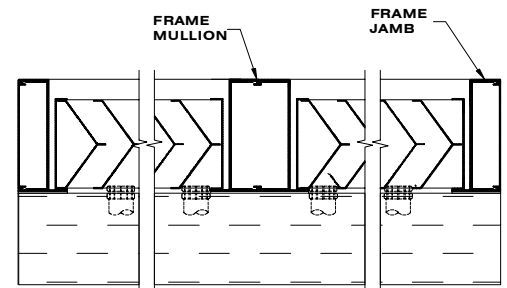
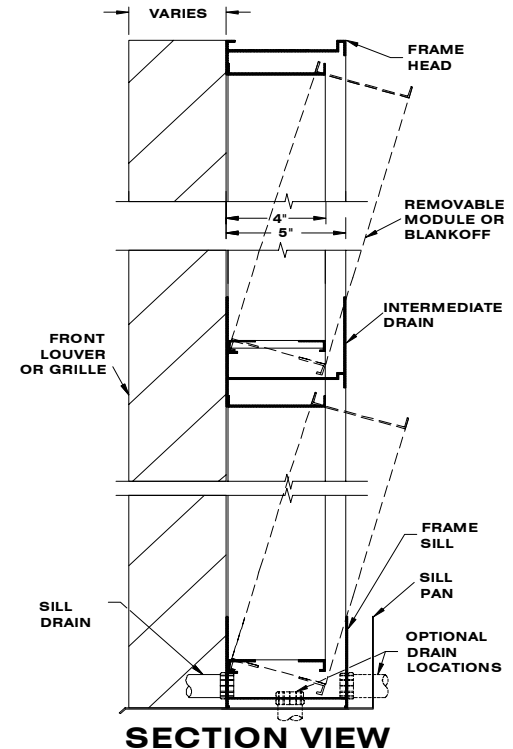
Location Smart® as manufactured by Construction Specialties Inc., Cranford, NJ; and Mississauga, Ontario. Complete details shall be submitted to the architect for approval prior to fabrication and substitutes shall be acceptable except by prior written approval

- MATERIAL:** Frames and blades to be fabricated from 6063-T5 aluminum alloy. 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" (1.27mm) 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. Individual Location Smart® modules shall be removable and be supplied with integral bird or insect screens. Where required, the louvers are to be supplied with removable blankoff panels, framed with 0.050" (1 mm) aluminum extrusions and fabricated with 0.032" (0.8 mm) skins and 2" (50 mm) thick foam cores.

- 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 4' 0" (1219 mm) wide by 8' 0" (2438 mm) high. Any additional structural supports required to adequately secure these units within the opening shall be the responsibility of others.

- PERFORMANCE:** The louver shall be tested for weather performance with a 29.1 mph (13m/s) wind directed at the face of the louver and with a rain fall rate of 3.0 inches per hour (75mm/hr.). The test data shall show that the water penetration effectiveness is Class A at a free area velocity through the Location Smart® module of up to 1600 fpm. The free area and pressure drop across the louvers shall be as published in the "C/S Modular Louver Models LS-100, 200, 300 and 400 Location Smart®" Technical Bulletin.

- FINISH:** Louvers shall be finished in Kynar 500®/Hylar 5000®, a minimum 1 mil (0.025mm) thick full strength 70% resin fluoropolymer coating. The coating shall meet or exceed all requirements of AAMA spec 2605 "Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels". The Louver manufacturer shall supply an industry standard 5 year limited warranty against failure of the Kynar 500/Hylar 5000 finish. This limited warranty shall begin on the date of material shipment (Note: Kynar 500/Hylar 5000 finish with an extended 20 year limited warranty is available as an option at extra cost). The finish will be applied to the exterior elements only.



PLAN VIEW

SCALE: 1-1/2" = 1'

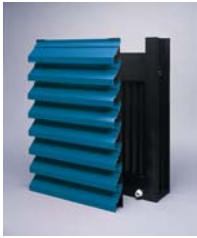
For further assistance call (800)631-7379

Kynar 500® is a registered trademark of AUTOFINA CHEMICALS, INC.

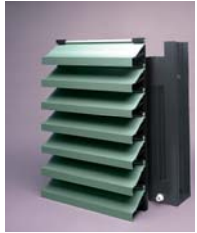
Hylar 5000® is a registered trademark of AUSIMONT USA

C/S Modular Louvers

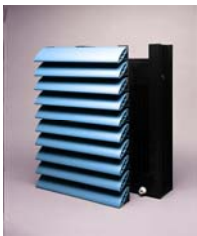
Other Models Available; For Assistance Call 800-631-7379



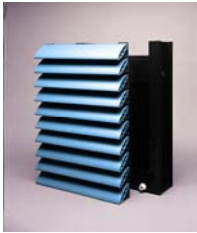
Model Front / Rear	Effectiveness* @ 2.95 in/hr & 29.1 mph	Free Area of 4' x4' Unit (sq.ft.)	Pressure Drop @ 900 fpm free area velocity (In. Water)
2252 / LS-100	100%	7.83	0.39
2252 / LS-200	100%	8.08	0.41
2252 / LS-300	99%+	7.97	0.42
2252 / LS-400	99%+	8.06	0.43



Model Front / Rear	Effectiveness* @ 2.95 in/hr & 29.1 mph	Free Area of 4' x4' Unit (sq.ft.)	Pressure Drop @ 900 fpm free area velocity (In. Water)
A4080 / LS-100	100%	7.83	0.25
A4080 / LS-200	100%	8.08	0.27
A4080 / LS-300	99%+	7.97	0.27
A4080 / LS-400	99%+	8.06	0.28



Model Front / Rear	Effectiveness* @ 2.95 in/hr & 29.1 mph	Free Area of 4' x4' Unit (sq.ft.)	Pressure Drop @ 900 fpm free area velocity (In. Water)
4" Airfoil / LS-100	100%	7.83	0.17
4" Airfoil / LS-200	100%	8.08	0.20
4" Airfoil / LS-300	99%+	7.97	0.22
4" Airfoil / LS-400	99%+	8.06	0.23



Model Front / Rear	Effectiveness* @ 2.95 in/hr & 29.1 mph	Free Area of 4' x4' Unit (sq.ft.)	Pressure Drop @ 900 fpm free area velocity (In. Water)
6" Airfoil / LS-100	100%	7.83	0.17
6" Airfoil / LS-200	100%	8.08	0.20
6" Airfoil / LS-300	99%+	7.97	0.21
6" Airfoil / LS-400	99%+	8.06	0.22



Model Front / Rear	Effectiveness* @ 2.95 in/hr & 29.1 mph	Free Area of 4' x4' Unit (sq.ft.)	Pressure Drop @ 900 fpm free area velocity (In. Water)
2" x 12" Myriad Cont. / LS-100	100%	7.83	0.21
2" x 12" Myriad Cont. / LS-200	100%	8.08	0.24
2" x 12" Myriad Cont. / LS-300	99%+	7.97	0.25
2" x 12" Myriad Cont. / LS-400	99%+	8.06	0.26



Model Front / Rear	Effectiveness* @ 2.95 in/hr & 29.1 mph	Free Area of 4' x4' Unit (sq.ft.)	Pressure Drop @ 900 fpm free area velocity (In. Water)
4" x 4" Myriad XXX / LS-100	100%	7.83	0.21
4" x 4" Myriad XXX / LS-200	100%	8.08	0.24
4" x 4" Myriad XXX / LS-300	99%+	7.97	0.25
4" x 4" Myriad XXX / LS-400	99%+	8.06	0.26

* Effectiveness for a free area velocity up to 1600 ft_{min}

Rear Module Only Free Area in Sq. Feet and Sq. Meters

Model LS-100

Width in Inches and Meters

Height in Inches and Meters

		24	36	48	60
		0.61	0.91	1.22	1.53
24	1.51	2.48	3.46	4.44	
	0.61	0.14	0.23	0.32	0.41
36	2.46	4.05	5.65	7.24	
	0.91	0.23	0.38	0.52	0.67
48	3.41	5.62	7.83	10.04	
	1.22	0.32	0.52	0.73	0.93
60	4.36	7.19	10.02	12.84	
	1.53	0.41	0.67	0.93	1.19

Model LS-200

Width in Inches and Meters

Height in Inches and Meters

		24	36	48	60
		0.61	0.91	1.22	1.53
24	1.58	2.60	3.62	4.64	
	0.61	0.15	0.24	0.34	0.43
36	2.55	4.20	5.85	7.50	
	0.91	0.24	0.39	0.54	0.70
48	3.52	5.80	8.08	7.39	
	1.22	0.33	0.54	0.75	0.69
60	4.49	7.40	10.31	13.22	
	1.53	0.42	0.69	0.96	1.23

Model LS-300

Width in Inches and Meters

Height in Inches and Meters

		24	36	48	60
		0.61	0.91	1.22	1.53
24	1.53	2.52	3.51	4.50	
	0.61	0.14	0.23	0.33	0.42
36	2.50	4.12	5.74	7.36	
	0.91	0.23	0.38	0.53	0.68
48	3.47	5.72	7.97	10.22	
	1.22	0.32	0.53	0.74	0.95
60	4.44	7.32	10.20	13.08	
	1.53	0.41	0.68	0.95	1.22

Model LS-400

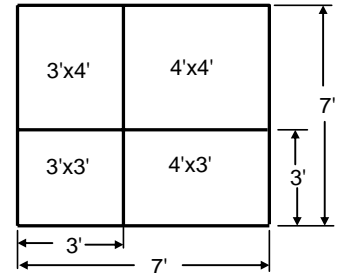
Width in Inches and Meters

Height in Inches and Meters

		24	36	48	60
		0.61	0.91	1.22	1.53
24	1.50	2.48	3.46	4.43	
	0.61	0.14	0.23	0.32	0.41
36	2.51	4.13	5.76	7.39	
	0.91	0.23	0.38	0.54	0.69
48	3.51	5.79	8.06	10.34	
	1.22	0.33	0.54	0.75	0.96
60	4.51	7.44	10.37	13.29	
	1.53	0.42	0.69	0.96	1.24

Notes: To obtain the free area for a given size louver combine the free areas of the base modules given above.

For Example: A 7' wide by 7' high LS-100 louver can be made up with one 3' wide by 3' high unit, one 4' wide by 3' high unit, one 3' wide by 4' high unit and one 4' wide by 4' high unit. The free areas for a LS-100 using these modules is 4.05 + 5.65 + 5.26 + 7.83 = 22.81 square feet.



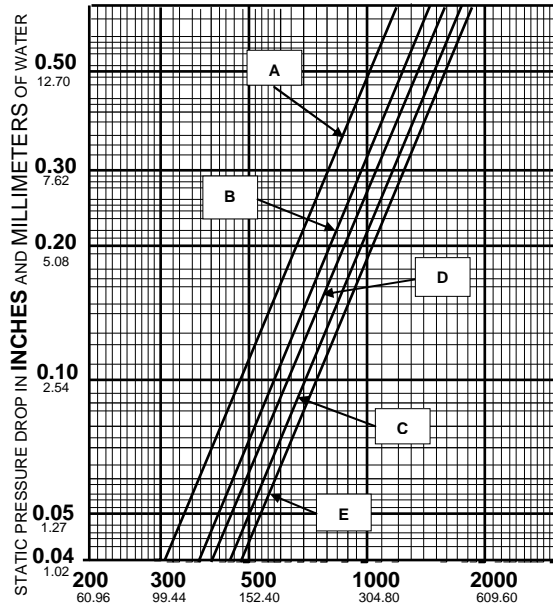
	LS-100	LS-200	LS-300	LS-400
Rear Blade Spacing:	1"	1.5"	1.75"	2"

Wind Driven Rain Performance at a Free Area Velocity of 1600 FPM

Wind Velocity (MPH)	Rain Fall Rate (In./Hr.)	Module Type			
		LS-100	LS-200	LS-300	LS-400
29	3	100	100	99+	99+
45	3	100	100	99+	
45	4	100	100	99+	
60	3	100	100		
60	4	100	99+		
75	6	100	99+		

Pressure Drop Data for Front & Rear Louver Combination

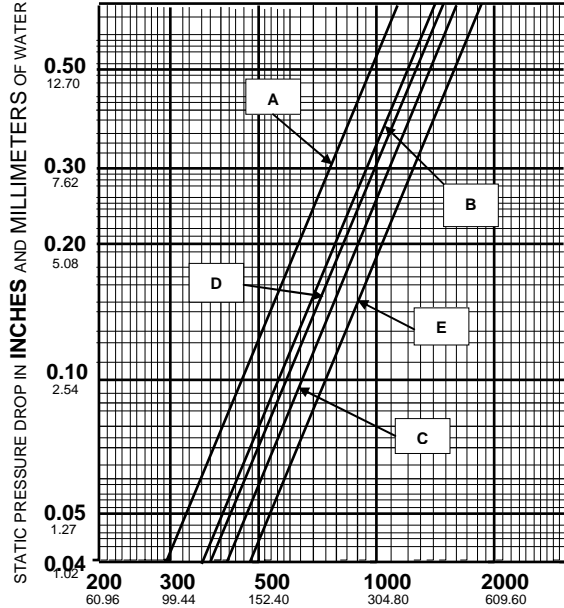
For LS-100 Louvers



AIR VELOCITY IN FEET AND METERS PER MINUTE THROUGH FREE AREA

- A 2252 Front Blade with LS-100
- B A4080 Front Blade with LS-100
- C 4" or 6" Airfoil Front Blade with LS-100
- D 2"x12" Myriad Cont. or 4"x4" Myriad XXX with LS-100
- E No front Louver or Grille only LS-100

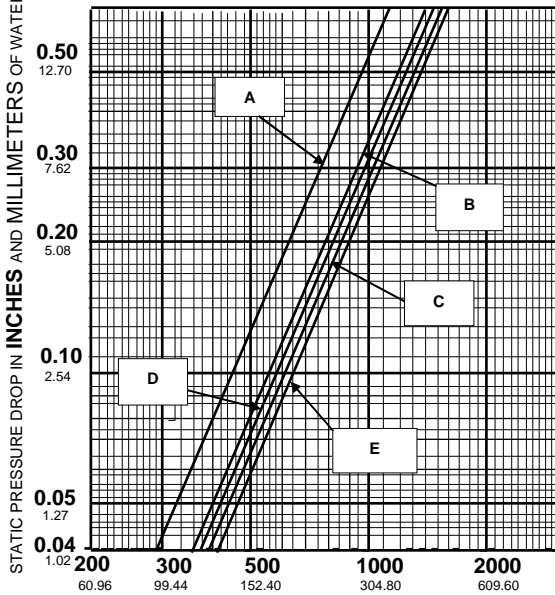
For LS-200 Louvers



AIR VELOCITY IN FEET AND METERS PER MINUTE THROUGH FREE AREA

- A 2252 Front Blade with LS-200
- B A4080 Front Blade with LS-200
- C 4" or 6" Airfoil Front Blade with LS-200
- D 2"x12" Myriad Cont. or 4"x4" Myriad XXX with LS-200
- E No front Louver or Grille only LS-200

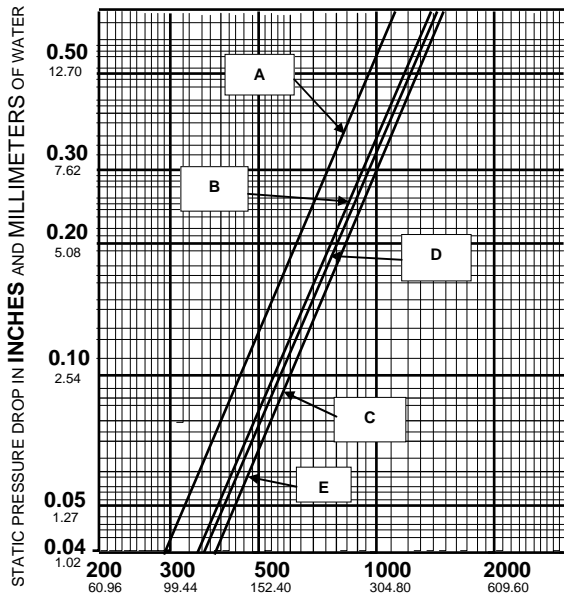
For LS-300 Louvers



AIR VELOCITY IN FEET AND METERS PER MINUTE THROUGH FREE AREA

- A 2252 Front Blade with LS-300
- B A4080 Front Blade with LS-300
- C 4" or 6" Airfoil Front Blade with LS-300
- D 2"x12" Myriad Cont. or 4"x4" Myriad XXX with LS-300
- E No front Louver or Grille only LS-300

For LS-400 Louvers



AIR VELOCITY IN FEET AND METERS PER MINUTE THROUGH FREE AREA

- A 2252 Front Blade with LS-400
- B A4080 Front Blade with LS-400
- C 4" or 6" Airfoil Front Blade with LS-400
- D 2"x12" Myriad Cont. or 4"x4" Myriad XXX with LS-400
- E No front Louver or Grille only LS-400