

645RAAB

Stationary Acoustical Louver

Extruded Aluminum



APPLICATION

The 645RAAB is a 6" deep stationary acoustical louver designed to reduce the noise transmission between areas. This louver is specifically designed for weather protection of intake and exhaust exterior wall applications. It provides high free area and low airflow resistance with sound absorbing insulated blades for areas that require noise separation.

STANDARD CONSTRUCTION

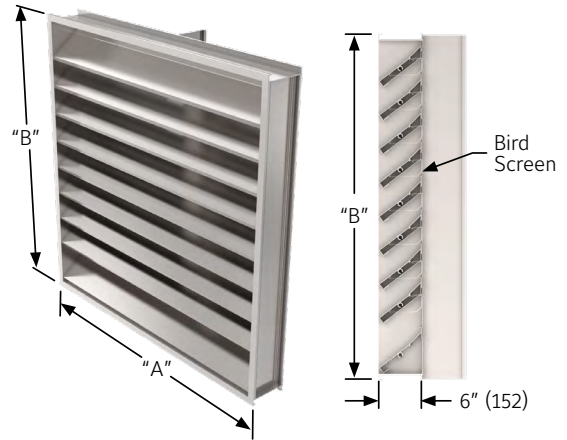
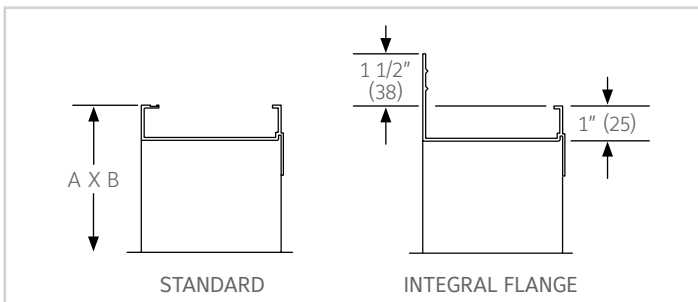
Frame	6" (152) deep, 6063T6 extruded aluminum, .080" (2.0) nominal wall thickness. Caulking surfaces provided.
Blades	6063T6 extruded aluminum, .094" (2.4) exterior surface nominal wall thickness with .051" (1.3) perforated aluminum interior surface. Blades are positioned at 45° angle and spaced approximately 45/8" (118) center to center.
Insulation	1" (25) fiberglass.
Screen	3/4" x .051" (19 X 1.3) expanded, flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.
Finish	Mill.
Minimum Size	12" w x 12" h (305 x 305).
Approximate Shipping Weight	5 lbs./ft. ² (24.3 kg per m ²).
Maximum Factory Assembly Size	Shall be 75 sq. ft. (7m ²) per section, not to exceed 120" w and 90" h (3048 and 2286) or 90" w and 120" h (2286 x 3048). Louvers larger than the maximum factory assembly size will require field assembly of smaller sections.
Supports	Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload.

Consult Reliable for additional information.

FEATURES

- 30% Free Area
- Published performance ratings based on testing in accordance with AMCA Publication 511
- Architecturally styled hidden mullions allowing continuous line appearance
- Aluminum construction for low maintenance and high resistance to corrosion

FRAME CONSTRUCTION



VARIATIONS

Variations to the basic design of the louver are available at additional cost. They include:

- Extended sill
- Hinged frame
- Front or rear security bars
- Filter racks
- Blank of panels
- Integral flange frame
- A variety of bird and insect screens
- Installation angles
- Optional finishes available at additional cost: Prime coat, 50% PDVF (modified fluoropolymer), Epoxy, Pearledize, 70% PVDF, Clear and Color Anodized finishes. (Some variation in anodize color consistency is possible)

Consult Reliable for other special requirements.

Octave Band Frequency (Hz)	Free Field Noise Reduction (db) 1" (25) Fiberglass Insulation
1/63	9
2/125	7
3/250	8
4/500	9
5/1000	10
6/2000	16
7/4000	16
8/8000	19

Note:

- Dimensions in inches, parenthesis () indicate millimeters.
- Units can be furnished actual size or with size deducts.

PERFORMANCE DATA

AMCA Standard 500 provides a reasonable basis for testing and rating louvers. Testing to AMCA 500 is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate.

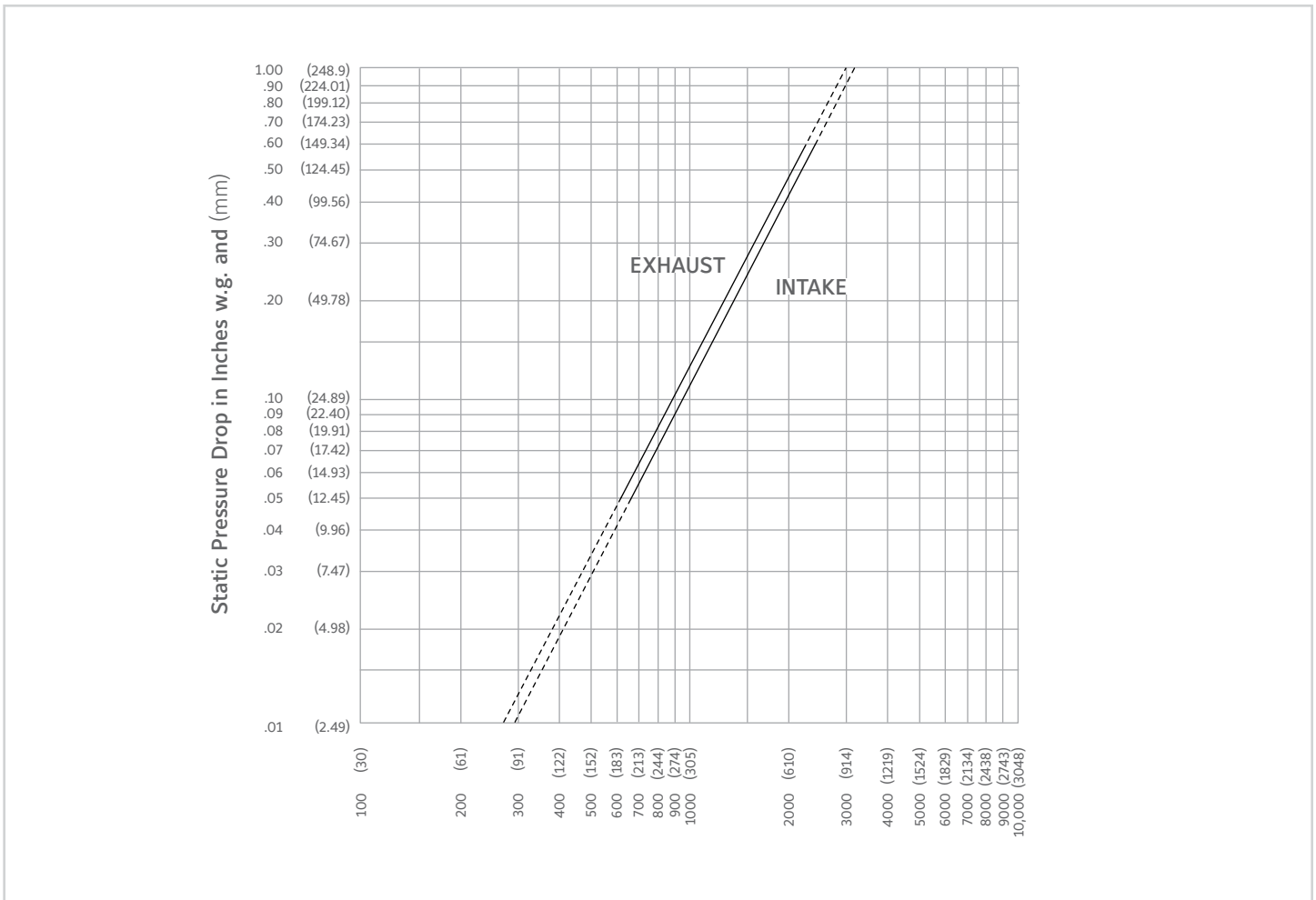
The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carry-over, design with a performance level somewhat below maximum desired pressure drop and .01 oz. of water penetration.

FREE AREA GUIDE

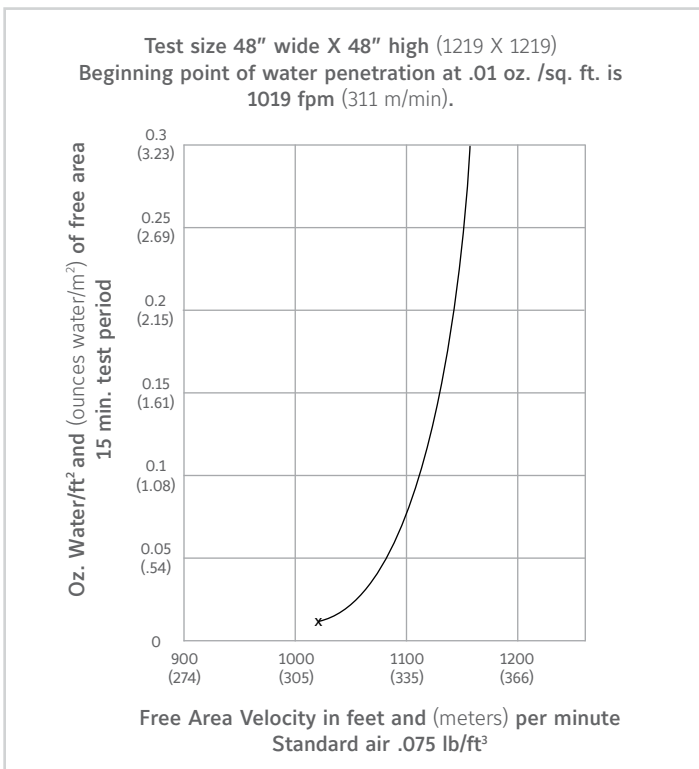
Free Area Guide shows free area in ft² and m² for various sizes of 645RAAB.

		Width – Inches and Meters																		
		12 0.30	18 0.45	24 0.60	30 0.75	36 0.90	42 1.05	48 1.20	54 1.35	60 1.50	66 1.65	72 1.80	78 1.95	84 2.10	90 2.25	96 2.40	102 2.55	108 2.70	114 2.85	120 3.00
Height – Inches and Meters	12 0.30	0.06 0.01	0.10 0.01	0.14 0.01	0.18 0.02	0.21 0.02	0.25 0.02	0.29 0.03	0.33 0.03	0.36 0.03	0.40 0.04	0.44 0.04	0.48 0.04	0.51 0.05	0.55 0.05	0.59 0.05	0.63 0.06	0.67 0.06	0.70 0.07	0.74 0.07
	18 0.45	0.26 0.02	0.41 0.04	0.57 0.05	0.72 0.07	0.88 0.08	1.03 0.10	1.19 0.11	1.34 0.12	1.50 0.14	1.65 0.15	1.81 0.17	1.96 0.18	2.12 0.20	2.28 0.21	2.43 0.23	2.59 0.24	2.74 0.25	2.90 0.27	3.05 0.28
	24 0.60	0.40 0.04	0.65 0.06	0.90 0.08	1.14 0.11	1.39 0.13	1.63 0.15	1.88 0.17	2.13 0.20	2.37 0.22	2.62 0.24	2.86 0.27	3.11 0.29	3.35 0.31	3.60 0.33	3.85 0.36	4.09 0.38	4.34 0.40	4.58 0.43	4.83 0.45
	30 0.75	0.55 0.05	0.89 0.08	1.23 0.11	1.56 0.15	1.90 0.18	2.23 0.21	2.57 0.24	2.91 0.27	3.24 0.30	3.58 0.33	3.92 0.36	4.25 0.40	4.59 0.43	4.92 0.46	5.26 0.50	5.60 0.52	5.93 0.55	6.27 0.58	6.61 0.61
	36 0.90	0.70 0.07	1.13 0.11	1.56 0.15	1.98 0.18	2.41 0.22	2.84 0.26	3.26 0.30	3.69 0.34	4.12 0.38	4.54 0.42	4.97 0.46	5.40 0.50	5.82 0.54	6.25 0.58	6.68 0.62	7.10 0.66	7.53 0.70	7.96 0.74	8.38 0.78
	42 1.05	0.90 0.08	1.44 0.13	1.98 0.18	2.53 0.24	3.07 0.29	3.62 0.34	4.16 0.39	4.71 0.44	5.25 0.49	5.79 0.54	6.34 0.59	6.88 0.64	7.43 0.69	7.97 0.74	8.52 0.79	9.06 0.84	9.60 0.89	10.15 0.94	10.69 0.99
	48 1.22	1.04 0.10	1.68 0.16	2.31 0.22	2.95 0.27	3.58 0.33	4.22 0.39	4.85 0.45	5.49 0.51	6.12 0.57	6.76 0.63	7.39 0.69	8.03 0.75	8.66 0.81	9.30 0.86	9.93 0.92	10.57 0.98	11.20 1.04	11.84 1.10	12.47 1.16
	54 1.35	1.19 0.11	1.92 0.18	2.64 0.25	3.37 0.31	4.09 0.38	4.82 0.45	5.54 0.52	6.27 0.58	6.99 0.65	7.72 0.72	8.45 0.79	9.17 0.85	9.90 0.92	10.62 0.99	11.35 1.06	12.07 1.12	12.80 1.19	13.52 1.26	14.25 1.32
	60 1.50	1.39 0.13	2.23 0.21	2.97 0.29	3.72 0.36	4.47 0.44	5.22 0.52	5.97 0.60	6.72 0.68	7.47 0.76	8.22 0.83	8.97 0.91	9.72 0.99	10.47 1.07	11.22 1.15	11.97 1.23	12.72 1.30	13.47 1.38	14.22 1.46	14.97 1.54
	66 1.65	1.54 0.14	2.47 0.23	3.21 0.32	3.95 0.40	4.69 0.49	5.43 0.58	6.17 0.66	6.91 0.75	7.65 0.84	8.39 0.92	9.13 1.01	9.87 1.10	10.61 1.18	11.35 1.27	12.09 1.36	12.83 1.44	13.57 1.53	14.31 1.62	15.05 1.71
	72 1.80	1.68 0.16	2.71 0.25	3.45 0.35	4.19 0.44	4.93 0.54	5.67 0.63	6.41 0.73	7.15 0.82	7.89 0.92	8.63 1.01	9.37 1.11	10.11 1.20	10.85 1.30	11.59 1.39	12.33 1.49	13.07 1.58	13.81 1.68	14.55 1.78	15.29 1.87
	78 1.95	1.83 0.17	2.95 0.27	3.69 0.38	4.43 0.48	5.17 0.58	5.91 0.69	6.65 0.79	7.39 0.90	8.13 1.00	8.87 1.10	9.61 1.21	10.35 1.31	11.09 1.41	11.83 1.52	12.57 1.62	13.31 1.72	14.05 1.83	14.79 1.93	15.53 2.04
	84 2.10	2.03 0.19	3.26 0.30	4.00 0.42	4.74 0.53	5.48 0.65	6.22 0.76	6.96 0.88	7.70 0.99	8.44 1.10	9.18 1.22	9.92 1.33	10.66 1.45	11.40 1.56	12.14 1.68	12.88 1.79	13.62 1.91	14.36 2.02	15.10 2.14	15.84 2.25
	90 2.25	2.18 0.20	3.50 0.33	4.24 0.45	4.98 0.57	5.72 0.69	6.46 0.82	7.20 0.94	7.94 1.06	8.68 1.19	9.42 1.31	10.16 1.43	10.90 1.55	11.64 1.68	12.38 1.80	13.12 1.92	13.86 2.05	14.60 2.17	15.34 2.29	16.08 2.42
	96 2.40	2.32 0.22	3.74 0.35	4.48 0.48	5.22 0.61	5.96 0.74	6.70 0.87	7.44 1.00	8.18 1.14	8.92 1.27	9.66 1.40	10.40 1.53	11.14 1.66	11.88 1.79	12.62 1.92	13.36 2.05	14.10 2.17	14.84 2.29	15.58 2.41	16.32 2.54
	102 2.55	2.52 0.23	4.05 0.38	4.79 0.52	5.53 0.66	6.27 0.80	7.01 0.95	7.75 1.09	8.49 1.23	9.23 1.37	9.97 1.52	10.71 1.66	11.45 1.80	12.19 1.94	12.93 2.08	13.67 2.21	14.41 2.34	15.15 2.47	15.89 2.60	16.63 2.73
108 2.70	2.67 0.25	4.29 0.40	5.03 0.55	5.77 0.70	6.51 0.85	7.25 1.00	7.99 1.15	8.73 1.30	9.47 1.45	10.21 1.60	10.95 1.76	11.69 1.91	12.43 2.06	13.17 2.21	13.91 2.35	14.65 2.49	15.39 2.63	16.13 2.77	16.87 2.91	
114 2.85	2.82 0.26	4.53 0.42	5.27 0.58	6.01 0.74	6.75 0.90	7.49 1.06	8.23 1.22	8.97 1.38	9.71 1.53	10.45 1.69	11.19 1.85	11.93 2.01	12.67 2.17	13.41 2.33	14.15 2.49	14.89 2.65	15.63 2.81	16.37 2.97	17.11 3.03	
120 3.00	2.97 0.28	4.77 0.44	5.51 0.61	6.25 0.78	6.99 0.95	7.73 1.11	8.47 1.28	9.21 1.45	9.95 1.62	10.69 1.78	11.43 1.95	12.17 2.12	12.91 2.29	13.65 2.45	14.39 2.61	15.13 2.77	15.87 2.93	16.61 3.09	17.35 3.15	

PRESSURE DROP



WATER PENETRATION GRAPH

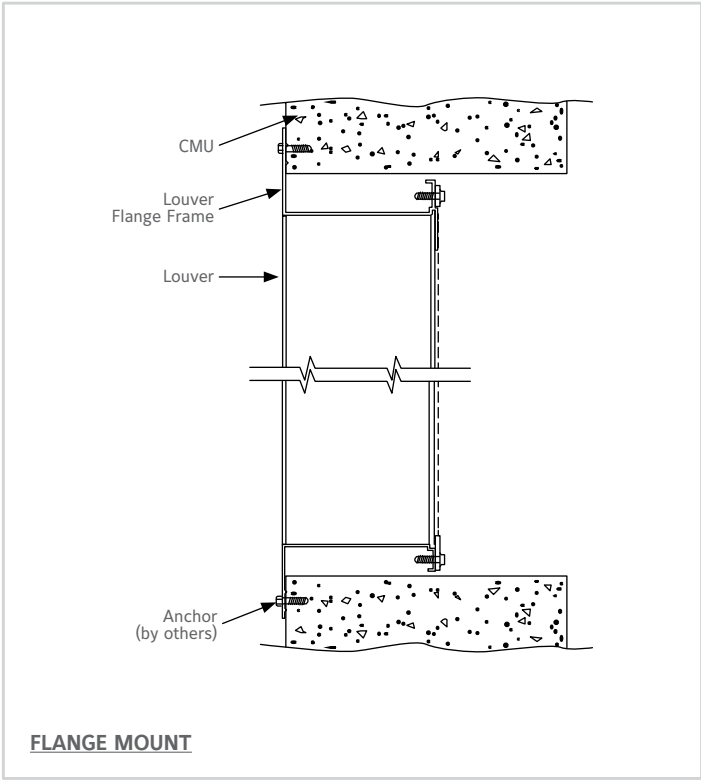
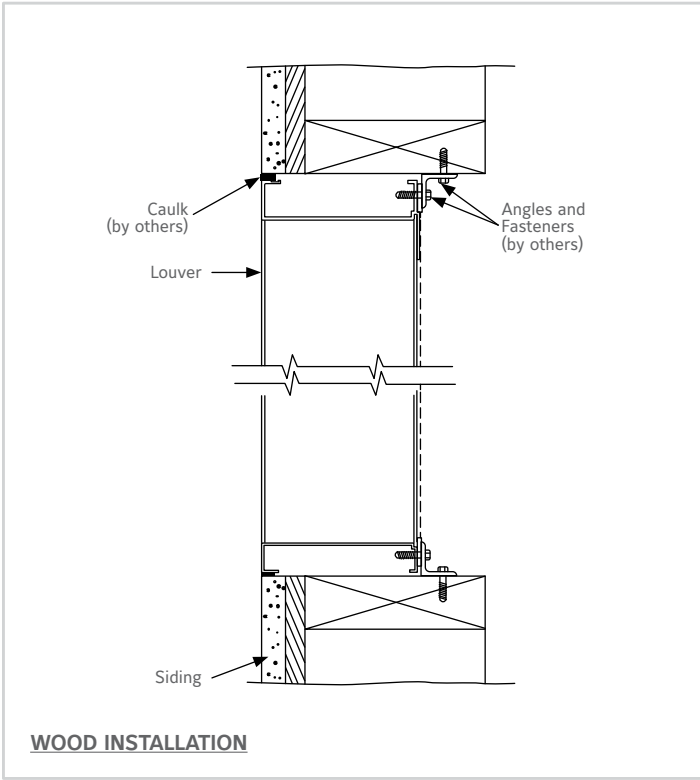
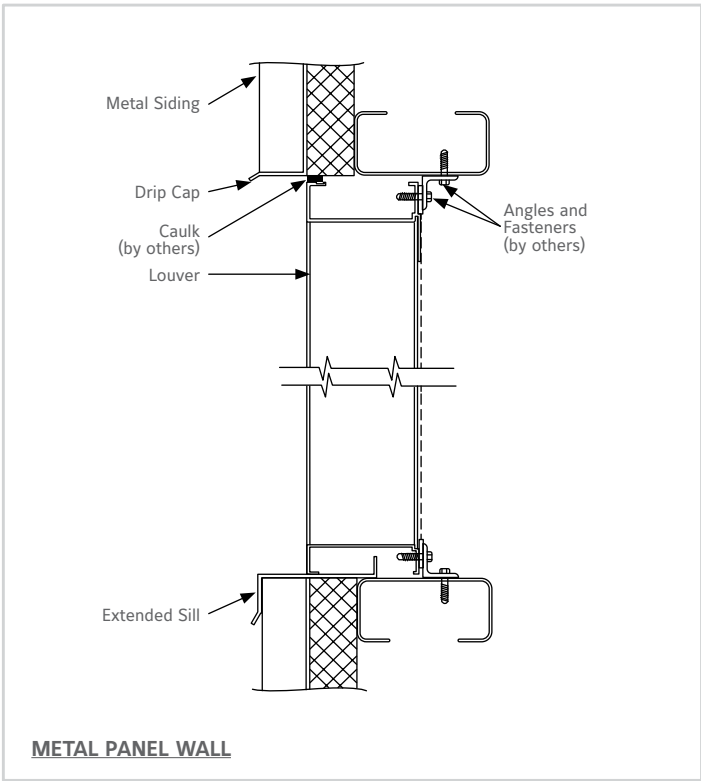
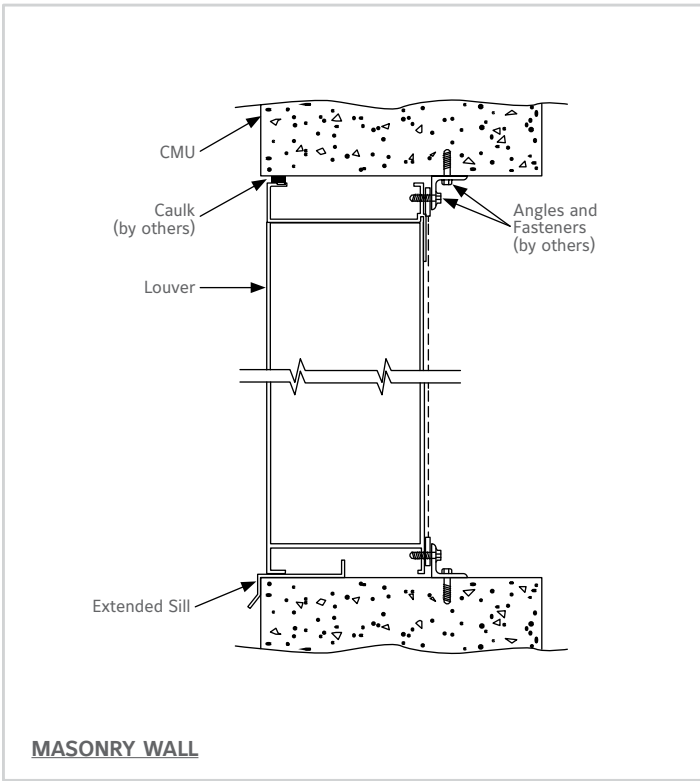


Ratings do not include the effect of a bird screen.



Reliable Products certifies that the 645RAAB louver 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 air performance ratings and water penetration ratings only.

TYPICAL INSTALLATION DETAILS



*Accessories at additional cost.

SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary type. Louvers shall have a minimum of 30% free area based on a 48" wide x 48" high (1219 x 1219) size. Stationary blades shall be contained within a 6" (152) frame. Louver components (heads, jambs, sills, blades & mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 30 psf(1.44 kPa) – equivalent of a 110 mph (177 kph) wind – specifier may substitute any loading required).

Louvers shall be Reliable Model 645RAAB extruded 6063T6 aluminum alloy construction as follows:

Frame: 6" (152) deep, .125" (3.2) wall thickness.

Blades: 6063T6 extruded aluminum, 0.094" (2.4) exterior surface nominal wall thickness with 0.051" (1.3) perforated aluminum interior surface. Blades are positioned at 45° angle and spaced approximately 45/8" (118) center to center.

Screen: 3/4" x .051" (19 x 1.3) expanded, flattened aluminum in removable frame.

Finish: Select finish specification from Reliable Finishes Brochure.

Published louver performance data bearing the AMCA Certified Ratings Seal for Air Performance and Water Penetration must be submitted for approval prior to fabrication and must demonstrate pressure drop equal to or less than the Reliable model specified.

LINKS TO IMPORTANT DOCUMENTS

Document Title
Finishes and Color Guide
Limited Warranty Document



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