

ACL645D

Stationary Acoustical Louver | Formed Aluminum

Miami-Dade County Approved | Miami-Dade County, Florida Notice of Acceptance
NOA: 23-1116.10 | Florida Product Approval #FL21829.3



APPLICATION

The ACL645D is a 6" deep Miami-Dade 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, .125" (3.175) aluminum channel.
Blades	.081" (2.057) aluminum exterior surface, with .050" (1.27) perforated aluminum interior surface that covers insulation. Blades positioned at 45° angle and spaced approximately 6" (152) center to center.
Acoustical Insulation	Mineral Wool.
Screen	5/8" mesh x .040" (16 x 1) expanded flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.
Finish	Mill
Minimum Size	12"w x 18"h (305 x 457)
Approximate Shipping Weight	6 lbs. per sq. ft.
Maximum Factory Assembly Size	Maximum single section size shall be 60" x 120" (1524 x 3048). Louvers larger than the maximum single section size will require field assembly of smaller sections.
Installation	The ACL645D must be installed per the appropriate installation Detail. Reference the appropriate separate Installation Instruction Sheets.

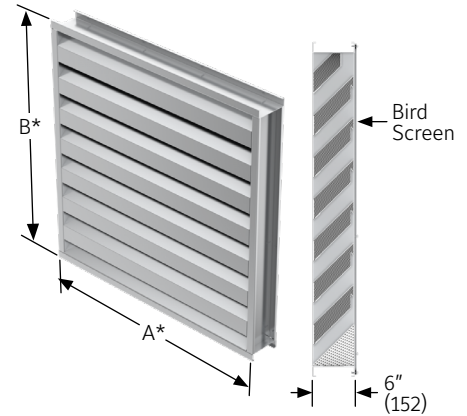
FEATURES

- ▶ Insulated blades which provide effective sound attenuation and weather protection with an architecturally pleasing appearance
- ▶ Maximum windload ±150 PSF (7.18 kPa)
- ▶ 26% Free Area
- ▶ Published performance ratings based on testing in accordance with AMCA Publication 511
- ▶ Beginning point of water penetration at 0.1 oz /sq.ft. is 769fpm (234 m/min)

VARIATIONS

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

- ▶ Extended sill
- ▶ Filter racks
- ▶ A variety of bird and insect screens
- ▶ Optional finishes available at additional cost.
Please see [Paint Finishes and Color Guide](#) and [Finish Type Model Chart](#) for more details. Contact louversales@ruskin.com with questions



Octave Band Frequency (Hz)	Free Field Noise Reduction (db) Ruskatherm Blanket
1/63	10
2/125	11
3/250	9
4/500	13
5/1000	19
6/2000	20
7/4000	19
8/8000	18

To calculate Transmission Loss (db), subtract 6 db from Free Field Noise Reduction (db).

NOTES:

- Dimensions in inches, parenthesis () indicate millimeters.
- *Units furnished 1/4" (6) smaller than given opening dimensions.

FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of ACL645D.

Width – Inches and Millimeters

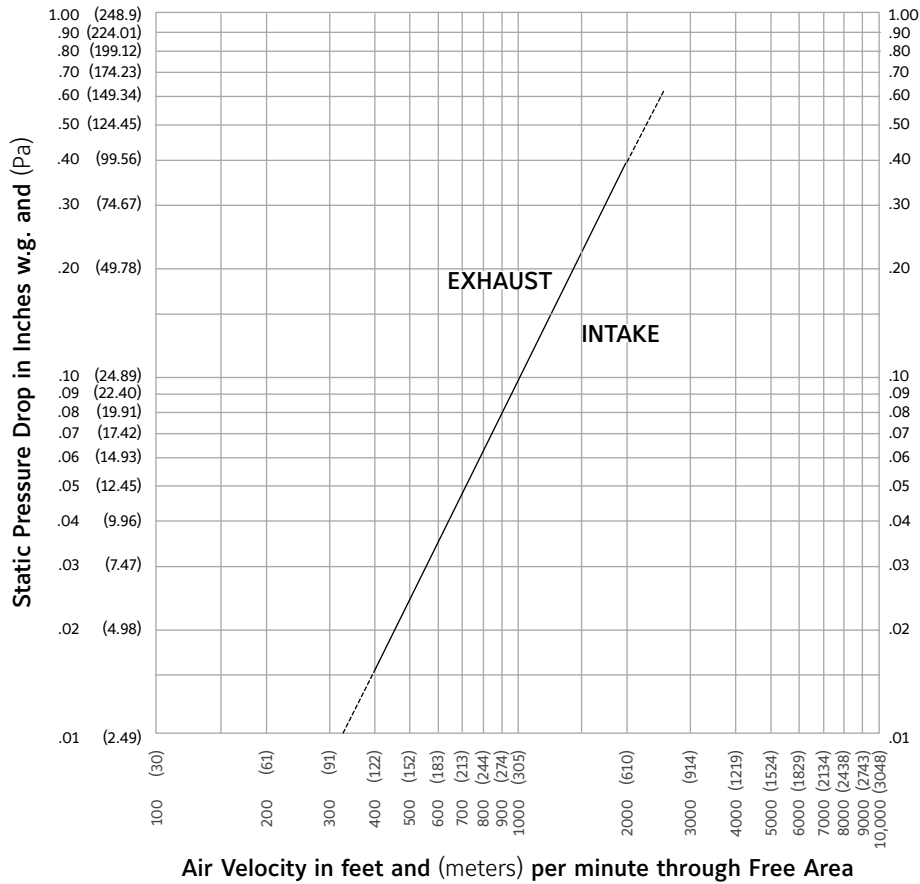
	12 0.30	18 0.45	24 0.60	30 0.75	36 0.90	42 1.05	48 1.20	54 1.35	60 1.50
18 0.45	0.24 0.02	0.40 0.04	0.56 0.05	0.71 0.07	0.87 0.08	1.03 0.10	1.19 0.11	1.35 0.13	1.51 0.14
24 0.60	0.36 0.03	0.60 0.06	0.83 0.08	1.07 0.10	1.31 0.12	1.55 0.14	1.79 0.17	2.02 0.19	2.26 0.21
30 0.75	0.48 0.10	0.79 0.16	1.11 0.22	1.43 0.27	1.74 0.33	2.06 0.39	2.38 0.45	2.70 0.51	3.01 0.57
36 0.90	0.59 0.06	0.99 0.09	1.39 0.13	1.78 0.17	2.18 0.20	2.58 0.24	2.97 0.28	3.37 0.31	3.77 0.35
42 1.05	0.71 0.07	1.19 0.11	1.66 0.15	2.14 0.20	2.62 0.24	3.09 0.29	3.57 0.33	4.04 0.38	4.52 0.42
48 1.20	0.83 0.08	1.39 0.13	1.94 0.18	2.50 0.23	3.05 0.28	3.61 0.34	4.16 0.39	4.71 0.44	5.27 0.49
54 1.35	0.95 0.09	1.58 0.15	2.22 0.21	2.85 0.27	3.49 0.32	4.12 0.38	4.75 0.44	5.39 0.50	6.02 0.56
60 1.50	1.07 0.10	1.78 0.17	2.50 0.23	3.21 0.30	3.92 0.36	4.63 0.43	5.35 0.50	6.06 0.56	6.77 0.63
66 1.65	1.19 0.11	1.98 0.18	2.77 0.26	3.56 0.33	4.36 0.41	5.15 0.48	5.94 0.55	6.73 0.63	7.53 0.70
72 1.80	1.31 0.12	2.18 0.20	3.05 0.28	3.92 0.36	4.79 0.45	5.66 0.53	6.54 0.61	7.41 0.69	8.28 0.77
78 1.95	1.43 0.13	2.38 0.22	3.33 0.31	4.28 0.40	5.23 0.49	6.18 0.57	7.13 0.66	8.08 0.75	9.03 0.84
84 2.10	1.54 0.14	2.57 0.24	3.60 0.34	4.63 0.43	5.66 0.53	6.69 0.62	7.72 0.72	8.75 0.81	9.78 0.91
90 2.25	1.66 0.15	2.77 0.26	3.88 0.36	4.99 0.46	6.10 0.57	7.21 0.67	8.32 0.77	9.43 0.88	10.53 0.98
96 2.40	1.78 0.17	2.97 0.28	4.16 0.39	5.35 0.50	6.53 0.61	7.72 0.72	8.91 0.83	10.10 0.94	11.29 1.05

Height – Inches and Millimeters



Ruskin Manufacturing Company certifies that the louver shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Standard 511 and comply with the requirements of the AMCA Certified Ratings Program. AMCA Certified Ratings Seal applies to air performance ratings and water penetration ratings only.

PRESSURE DROP



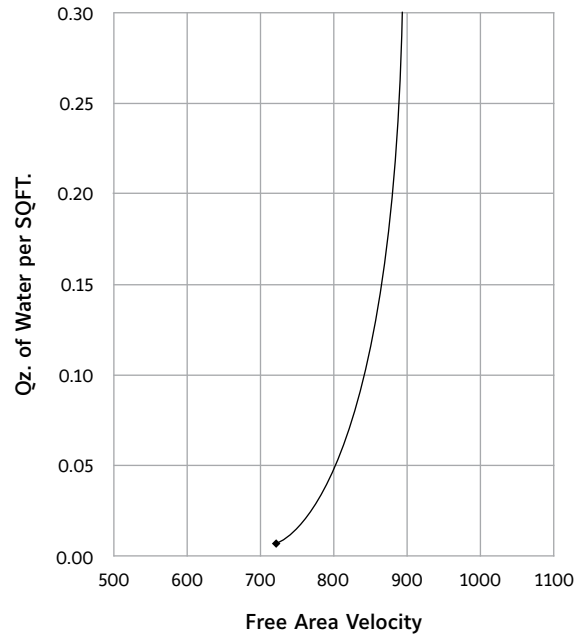
Ratings do not include the effect of a bird screen.

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./sq. ft. of water penetration.

Water penetration
 Test size 48" wide X 48" high (1219 X 1219)
 Beginning point of water penetration at .01 oz. /sq. ft. is
 769 fpm (234 m/min).



SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary acoustical type contained within a 6" (152) frame. Louver components (heads, jambs, sills, blades, and 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 windload of ± 150 lbs. per sq. ft. (7.18kPa). (Specifier may substitute any loading required).

Louvers shall be Ruskin Model ACL645D construction as follows:

Frame: .125" (3.175) aluminum channel.

Blades: .081" (2.057) aluminum exterior surface, with .050" (1.27) perforated aluminum interior surface that covers insulation. Blade angle 45° on 6" (152) centers.

Screen: 5/8" mesh x .040" (16 x 1) expanded flattened aluminum bird screen in removable frame.

Finish: Select finish specification from Ruskin 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 Ruskin model specified.

LINKS TO IMPORTANT DOCUMENTS

Document Title
Paint Finishes and Color Guide
Limited Warranty Document



3900 Doctor Greaves Road
Grandview, MO 64030
Website: www.ruskin.com
Phone: (816) 761-7476