

## ACL645D STATIONARY ACOUSTICAL LOUVER

MIAMI-DADE COUNTY APPROVED

MIAMI-DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE NUMBER: 16-0627.11 (EXPIRES 4/28/21)

FLORIDA PRODUCT APPROVAL #FL14655.1

FORMED ALUMINUM

### 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

Ruskatherm blanket.

#### SCREEN

5/8" mesh x .040" (16x1) 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

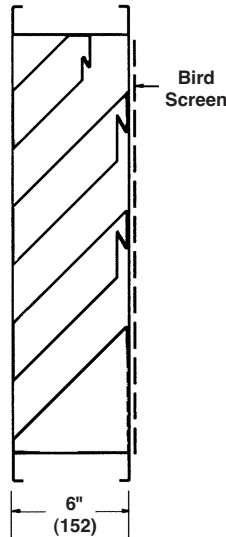
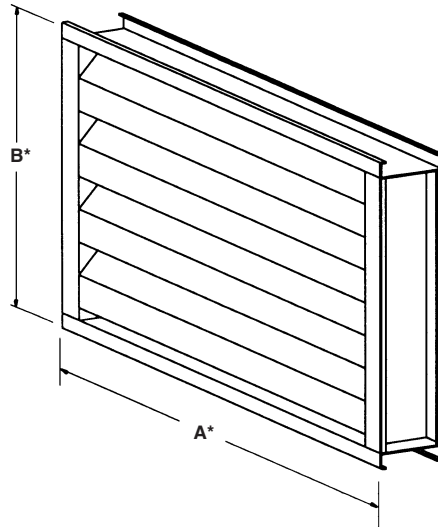
Shall be unlimited width x 120" (3048). Maximum single section size shall be 60" x 120" (1524 x 3048). Louvers larger than the maximum single section size will require field assembly of smaller sections.

#### INSTALLATION

The ACL645D must be installed per the appropriate installation Detail. Reference the appropriate separate Installation Instruction Sheets.

ACL645AFD meets the requirements for the following:

- Miami-Dade NOA Approval 16-0627.11
- Florida Product Approved FL 14655.1
- AMCA 500-L Tested



### FEATURES

The ACL645D offers:

- Insulated blades which provide effective sound attenuation and weather protection with an architecturally pleasing appearance.
- Maximum windload ±150 PSF (7.18 kPa).
- 29% Free Area.
- Published performance ratings based on testing in accordance with AMCA Publication 511.
- Architecturally pleasing appearance.

### VARIATIONS

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

- Extended sill.
- Front or rear security bars.
- Filter racks.
- A variety of bird and insect screens.
- Selection of finishes: 50% PVDF (modified fluoropolymer), epoxy, 70% PVDF, Pearledize 50 & 70, prime coat, integral color and clear anodize. (Some variation in anodize color consistency is possible.)

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).

Dimensions in parenthesis ( ) indicate millimeters.

\*Units furnished 1/4" (6) smaller than given opening dimensions.

TAG	QTY.	SIZE		FRAME	VARIATIONS
		A*-WIDE	B*-HIGH		
PROJECT ARCH./ENGR. REPRESENTATIVE			LOCATION CONTRACTOR DATE		

## 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, jams, 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 wind-load of  $\pm 150$  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/Valspar 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.

## PERFORMANCE DATA

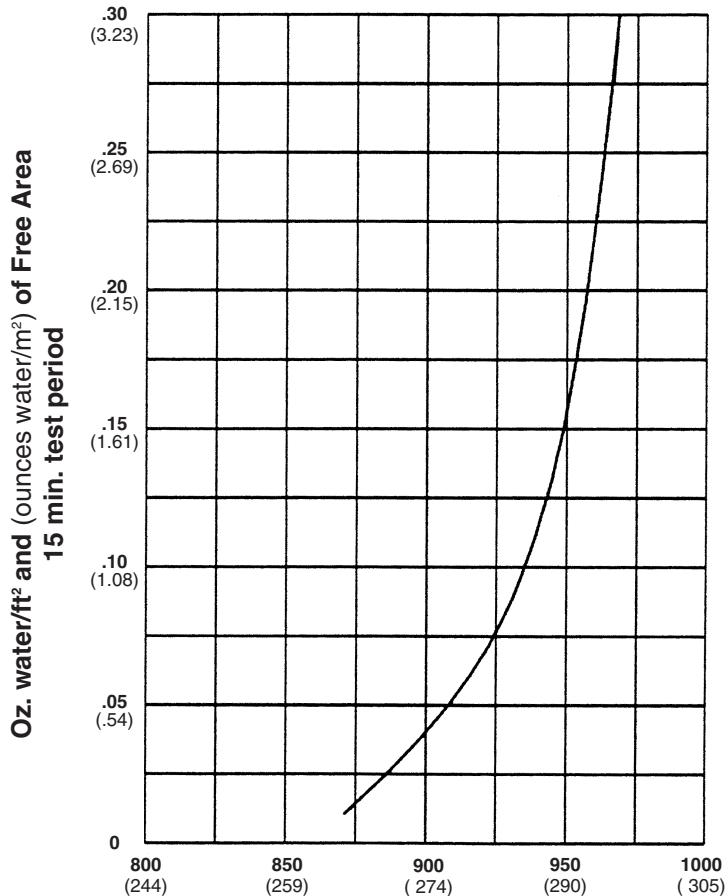
AMCA Standard 500 provides a reasonable basis for testing and rating louvers. Testing to AMCA 500 is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate.

The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carryover, 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 872 fpm (266 m/min).



Free Area Velocity in feet and (meters) per minute  
Standard air .075 lb/ft³

# FREE AREA GUIDE

Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of ACL645D.



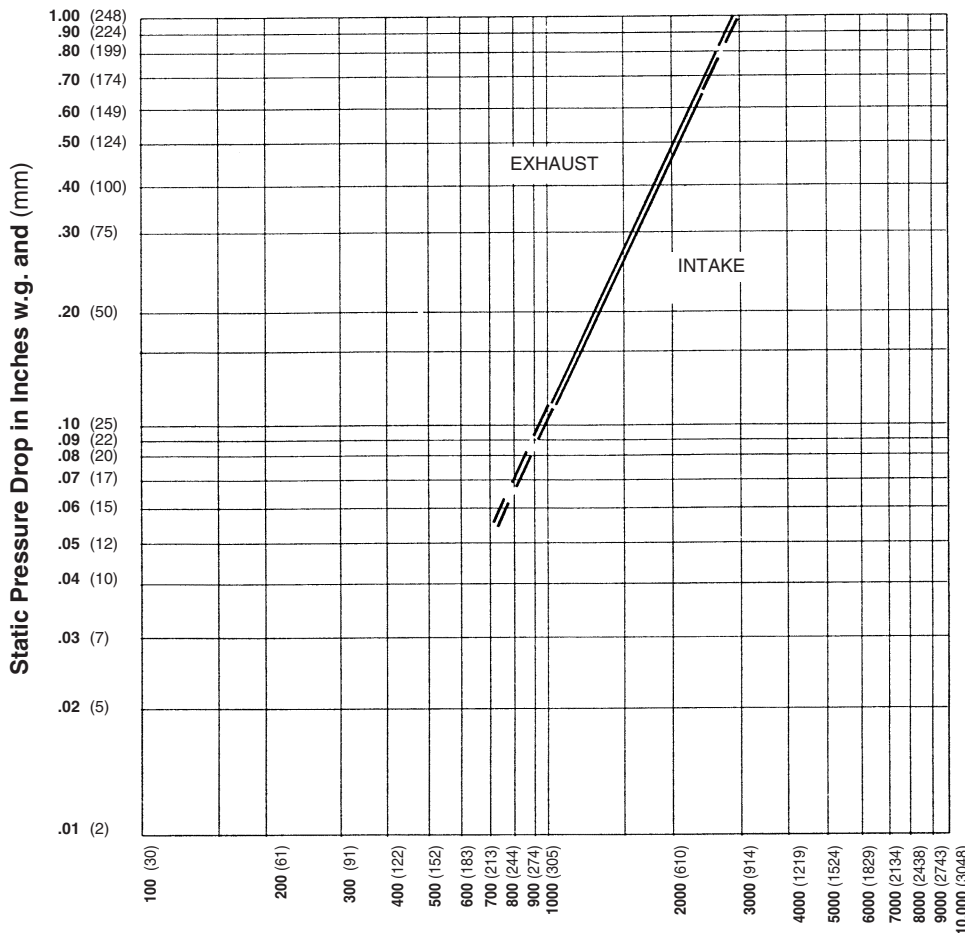
Height – Inches and Millimeters

	12 305	18 457	24 610	30 762	36 915	42 1067	48 1219	54 1372	60 1524	66 1676	72 1829	78 1981	84 2134	90 2286	96 2438
18 457	.26 .02	.44 .04	.62 .06	.79 .07	.97 .09	1.15 .11	1.32 .12	1.41 .14	1.59 .14	1.77 .16	1.94 .17	2.12 .20	2.30 .21	2.47 .24	2.65 .25
24 610	.40 .04	.66 .06	.93 .09	1.19 .11	1.46 .14	1.72 .15	1.99 .18	2.12 .20	2.39 .22	2.65 .25	2.92 .27	3.18 .30	3.45 .32	3.71 .34	3.98 .36
30 762	.53 .05	.88 .08	1.24 .11	1.59 .15	1.94 .17	2.30 .21	2.65 .25	2.83 .27	3.18 .30	3.54 .23	3.89 .36	4.24 .39	4.60 .43	4.95 .46	5.30 .49
36 915	.66 .06	1.10 .10	1.55 .14	1.99 .18	2.43 .23	2.87 .27	3.31 .31	3.54 .33	3.98 .36	4.42 .42	4.86 .45	5.30 .50	5.74 .53	6.19 .58	6.63 .61
42 1067	.80 .07	1.33 .12	1.86 .17	2.39 .22	2.92 .27	3.46 .32	3.98 .37	4.24 .39	4.77 .44	5.30 .49	5.83 .54	6.36 .58	6.89 .64	7.42 .69	7.95 .74
48 1219	.93 .09	1.55 .14	2.17 .20	2.78 .26	3.40 .32	4.02 .37	4.75 .43	4.95 .46	5.57 .52	6.19 .58	6.80 .63	7.42 .69	8.08 .76	8.66 .80	9.28 .86
54 1372	1.06 .10	1.77 .16	2.47 .23	3.18 .30	3.89 .36	4.60 .43	5.30 .49	5.66 .53	6.36 .59	7.07 .66	7.78 .72	8.48 .79	9.19 .85	9.90 .91	10.61 .99
60 1524	1.19 .11	1.99 .18	2.78 .26	3.58 .33	4.37 .41	5.17 .48	5.97 .55	6.36 .58	7.16 .67	7.95 .74	8.75 .81	9.54 .89	10.34 .96	11.14 1.03	11.93 1.11
66 1676	1.33 .12	2.21 .21	3.09 .29	3.98 .36	4.86 .45	5.74 .53	6.63 .61	7.07 .66	7.95 .74	8.84 .82	9.72 .90	10.61 .99	11.49 1.07	12.37 1.15	13.26 1.23
72 1829	1.46 .14	2.43 .23	3.40 .32	4.37 .41	5.35 .50	6.32 .58	7.29 .68	7.78 .72	8.75 .81	9.72 .90	10.69 .99	11.67 1.08	12.64 1.17	13.61 1.26	14.58 1.35
78 1981	1.59 .15	2.65 .25	3.71 .34	4.77 .44	5.83 .54	6.89 .64	7.95 .74	8.48 .79	9.54 .89	10.61 .99	11.67 1.08	12.73 1.18	13.79 1.28	14.85 1.38	15.91 1.48
84 2134	1.72 .16	2.87 .27	4.02 .37	5.17 .48	6.32 .58	7.47 .69	8.62 .80	9.19 .85	10.34 .96	11.49 1.07	12.64 1.17	13.79 1.28	14.94 1.39	16.08 1.49	17.23 1.60
90 2286	1.86 .17	3.09 .29	4.33 .40	5.57 .52	6.80 .63	8.04 .75	9.28 .86	9.90 .92	11.14 1.03	12.37 1.15	13.61 1.26	14.85 1.38	16.08 1.49	17.32 1.62	18.56 1.72
96 2438	1.99 .18	3.31 .31	4.64 .43	5.97 .55	7.29 .68	8.69 .81	9.94 .92	10.61 .99	11.93 1.11	13.26 1.23	14.58 1.35	15.91 1.48	17.23 1.60	18.56 1.72	19.88 1.85

Width – 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

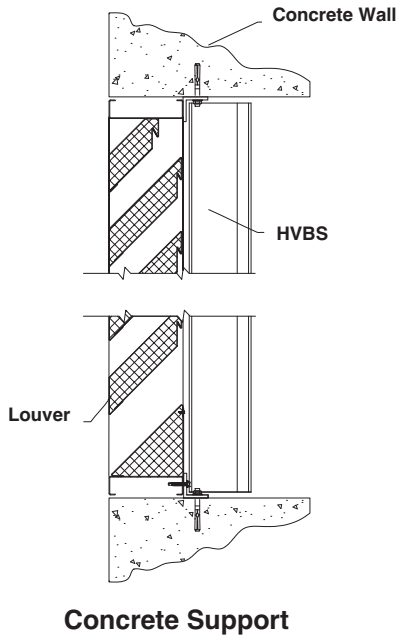


Ratings do not include the effect of a bird screen.

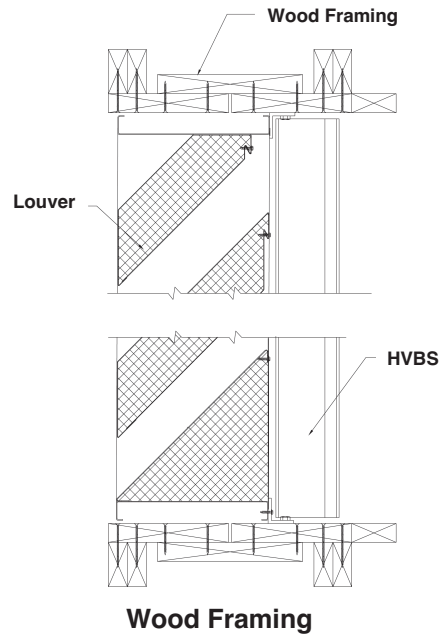
**Air Velocity in feet and (meters) per minute through Free Area**  
(Data corrected to standard air density and AMCA figure or figures tested to 5.5)

# TYPICAL INSTALLATION DETAILS

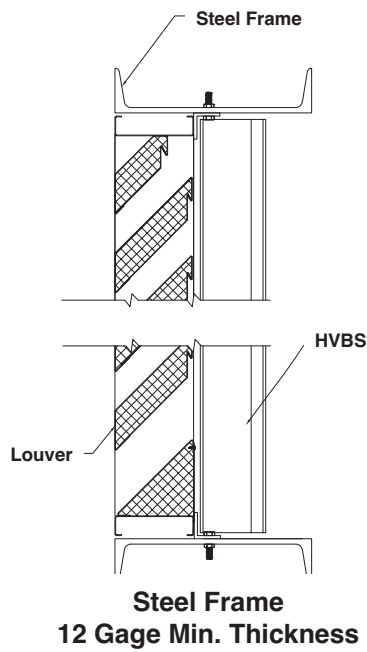
## Masonry Wall



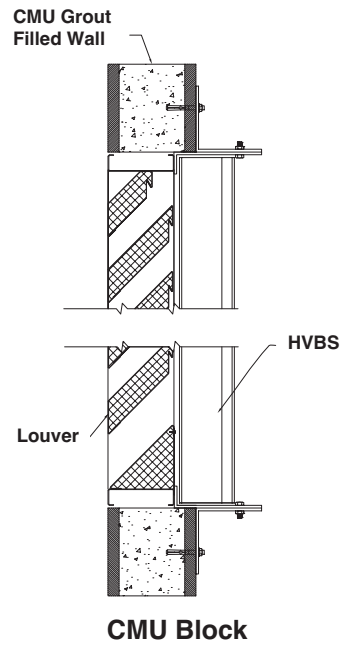
## Wood Installation



## Metal Panel Wall



## CMU Wall



Accessories at additional cost.

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