

# ACL845AF

## Stationary Acoustical Louver Formed Airfoil Louver



### APPLICATION

The ACL845AF is a 8" deep 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. Its airfoil blade design provides high free area and low airflow resistance with sound absorbing insulated blades for areas that require noise separation.

### STANDARD CONSTRUCTION

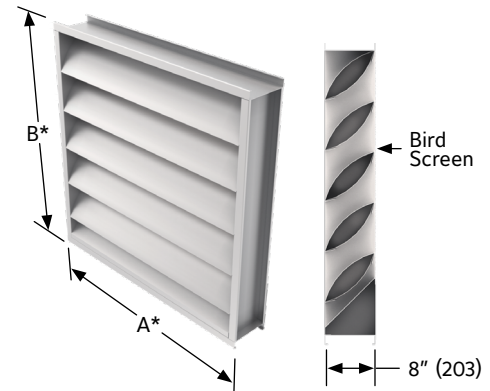
<b>Frame</b>	8" (203) deep 16 gauge (1.6) galvanized formed channel or 0.125" thk. (3.1) Aluminum 5005-H34 formed channel.
<b>Blades</b>	18 gauge (1.3) galvanized steel exterior surface with 22 gauge (0.9) perforated steel interior surface. 0.08" thick (2) aluminum 5005-H34 exterior surface with 0.05" thick (1.2) perforated interior surface. Blades positioned at 45° angle and spaced approximately 8" (203) center to center.
<b>Acoustical Insulation</b>	Mineral Wool.
<b>Screen</b>	1/2" mesh x 19 gage (13 x 1.1) galvanized bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.
<b>Finish</b>	Mill.
<b>Minimum Size</b>	12"w x 18"h (305 x 457).
<b>Approximate Shipping Weight</b>	8 lbs. per sq. ft.
<b>Maximum Factory Assembly Size</b>	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.

### FEATURES

- ▶ Excellent Sound Attenuation (see table)
- ▶ 30% Free Area
- ▶ Beginning point of water penetration at 0.01oz./sq.ft. is 841 fpm (256 m.min.)
- ▶ Published performance rating based on testing in accordance with AMCA publication 511
- ▶ Architecturally pleasing appearance

### VARIATIONS

- ▶ Various Screens
  - ▶ Extended Sills
  - ▶ Installation Angles, both clip and continuous angles available
  - ▶ Drip Cap
  - ▶ Filter Racks
  - ▶ Security Bars
  - ▶ Intragural Flanges
  - ▶ Glazing Frame
  - ▶ Sleeves
  - ▶ Optional finishes available at additional cost.
- Please see [Paint Finishes and Color Guide](#) and [Finish Type Model Chart](#) for more details. Contact [louverales@ruskin.com](mailto:louverales@ruskin.com) with questions



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

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

#### NOTES:

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

## FREE AREA GUIDE

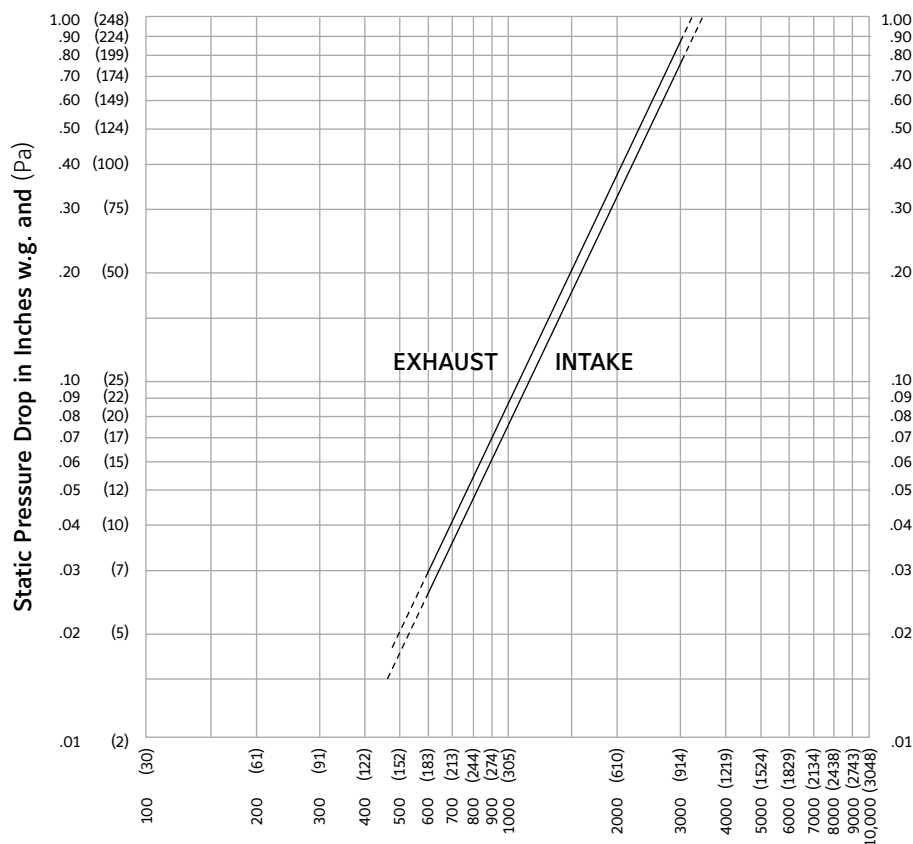
Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of ACL845AF.

### Width – Inches and Millimeters

	12	18	24	30	36	42	48	54	60
	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50
18	<b>0.17</b>	<b>0.29</b>	<b>0.40</b>	<b>0.52</b>	<b>0.63</b>	<b>0.74</b>	<b>0.86</b>	<b>0.97</b>	<b>1.09</b>
	0.45	0.02	0.04	0.05	0.07	0.09	0.10	0.12	0.13
24	<b>0.37</b>	<b>0.62</b>	<b>0.86</b>	<b>1.11</b>	<b>1.35</b>	<b>1.60</b>	<b>1.85</b>	<b>2.09</b>	<b>2.34</b>
	0.60	0.03	0.06	0.08	0.10	0.13	0.15	0.17	0.19
30	<b>0.57</b>	<b>0.94</b>	<b>1.32</b>	<b>1.70</b>	<b>2.08</b>	<b>2.46</b>	<b>2.83</b>	<b>3.21</b>	<b>3.59</b>
	0.75	0.05	0.08	0.11	0.14	0.17	0.20	0.23	0.26
36	<b>0.76</b>	<b>1.27</b>	<b>1.78</b>	<b>2.29</b>	<b>2.80</b>	<b>3.31</b>	<b>3.82</b>	<b>4.33</b>	<b>4.84</b>
	0.90	0.07	0.12	0.17	0.21	0.26	0.31	0.36	0.40
42	<b>0.76</b>	<b>1.27</b>	<b>1.78</b>	<b>2.29</b>	<b>2.80</b>	<b>3.31</b>	<b>3.82</b>	<b>4.33</b>	<b>4.84</b>
	1.05	0.07	0.12	0.17	0.21	0.26	0.31	0.36	0.40
48	<b>0.96</b>	<b>1.60</b>	<b>2.24</b>	<b>2.89</b>	<b>3.53</b>	<b>4.17</b>	<b>4.81</b>	<b>5.45</b>	<b>6.09</b>
	1.20	0.09	0.15	0.21	0.27	0.33	0.39	0.45	0.51
54	<b>1.16</b>	<b>1.93</b>	<b>2.71</b>	<b>3.48</b>	<b>4.25</b>	<b>5.02</b>	<b>5.80</b>	<b>6.57</b>	<b>7.34</b>
	1.35	0.11	0.18	0.25	0.32	0.40	0.47	0.54	0.61
60	<b>1.36</b>	<b>2.26</b>	<b>3.17</b>	<b>4.07</b>	<b>4.98</b>	<b>5.88</b>	<b>6.78</b>	<b>7.69</b>	<b>8.59</b>
	1.50	0.13	0.21	0.29	0.38	0.46	0.55	0.63	0.72
66	<b>1.36</b>	<b>2.26</b>	<b>3.17</b>	<b>4.07</b>	<b>4.98</b>	<b>5.88</b>	<b>6.78</b>	<b>7.69</b>	<b>8.59</b>
	1.65	0.13	0.21	0.29	0.38	0.46	0.55	0.63	0.72
72	<b>1.55</b>	<b>2.59</b>	<b>3.63</b>	<b>4.66</b>	<b>5.70</b>	<b>6.74</b>	<b>7.77</b>	<b>8.81</b>	<b>9.84</b>
	1.80	0.14	0.24	0.34	0.43	0.53	0.63	0.72	0.82
78	<b>1.75</b>	<b>2.92</b>	<b>4.09</b>	<b>5.26</b>	<b>6.42</b>	<b>7.59</b>	<b>8.76</b>	<b>9.93</b>	<b>11.10</b>
	1.95	0.16	0.27	0.38	0.49	0.60	0.71	0.81	0.92
84	<b>1.95</b>	<b>3.25</b>	<b>4.55</b>	<b>5.85</b>	<b>7.15</b>	<b>8.45</b>	<b>9.75</b>	<b>11.05</b>	<b>12.35</b>
	2.10	0.18	0.30	0.42	0.54	0.66	0.79	0.91	1.03
90	<b>1.95</b>	<b>3.25</b>	<b>4.55</b>	<b>5.85</b>	<b>7.15</b>	<b>8.45</b>	<b>9.75</b>	<b>11.05</b>	<b>12.35</b>
	2.25	0.18	0.30	0.42	0.54	0.66	0.79	0.91	1.03
96	<b>2.15</b>	<b>3.58</b>	<b>5.01</b>	<b>6.44</b>	<b>7.87</b>	<b>9.30</b>	<b>10.73</b>	<b>12.17</b>	<b>13.60</b>
	2.40	0.20	0.33	0.47	0.60	0.73	0.86	1.00	1.13
102	<b>2.34</b>	<b>3.91</b>	<b>5.47</b>	<b>7.03</b>	<b>8.60</b>	<b>10.16</b>	<b>11.72</b>	<b>13.28</b>	<b>14.85</b>
	2.55	0.22	0.36	0.51	0.65	0.80	0.94	1.09	1.24
108	<b>2.54</b>	<b>4.24</b>	<b>5.93</b>	<b>7.63</b>	<b>9.32</b>	<b>11.01</b>	<b>12.71</b>	<b>14.40</b>	<b>16.10</b>
	2.70	0.24	0.39	0.55	0.71	0.87	1.02	1.18	1.34
114	<b>2.54</b>	<b>4.24</b>	<b>5.93</b>	<b>7.63</b>	<b>9.32</b>	<b>11.01</b>	<b>12.71</b>	<b>14.40</b>	<b>16.10</b>
	2.85	0.24	0.39	0.55	0.71	0.87	1.02	1.18	1.34
120	<b>2.74</b>	<b>4.57</b>	<b>6.39</b>	<b>8.22</b>	<b>10.04</b>	<b>11.87</b>	<b>13.70</b>	<b>15.52</b>	<b>17.35</b>
	3.00	0.25	0.43	0.59	0.76	0.93	1.10	1.27	1.44

Height – Inches and Millimeters

## 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 tested to 5.5)

## 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.

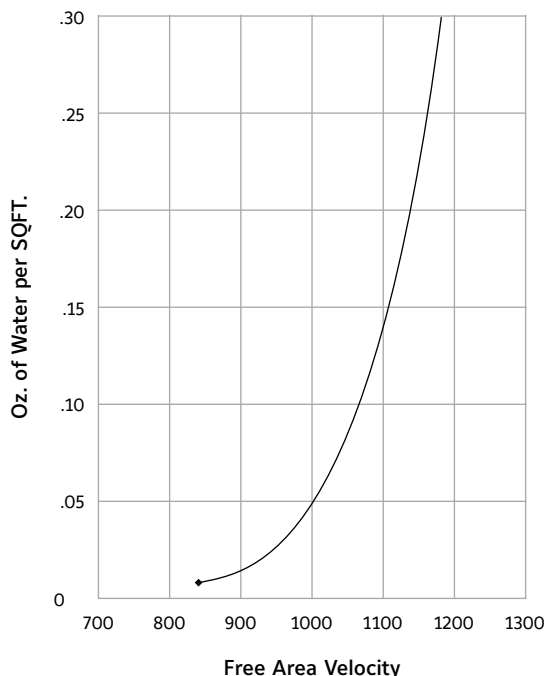


Ruskin Manufacturing Company certifies that the louver shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Standard 511 and comply with the requirements of the AMCA Certified Ratings Program. AMCA Certified Ratings Seal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

### Water penetration

Test size 48" wide X 48" high (1219 X 1219)

Beginning point of water penetration at .01 oz./sq. ft. lies above 841 fpm (256 m/min) through the Free Area of the ACL845AF louver.



## SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary airfoil acoustical type contained within an 8" (203) 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 30 psf (1.44 kPa) - equivalent of a 110 mph (177 kph) wind - specifier may substitute any loading required).

Louvers shall be Ruskin Model ACL845AF construction as follows:

Frame: 16 gage (1.6) galvanized steel channel.

Blades: 18 gage (1.3) airfoil match galvanized standard construction steel exterior surface, 22 gage (.9) perforated steel interior surface that covers insulation. Blade angle 45° on 8" (203) centers.

Screen: 1/2" mesh x 19 gage (13 x 1.1) galvanized steel in removable frame.

Finish: Select finish specification from Ruskin Finishes Brochure.

Published louver performance data bearing the AMCA Certified Ratings Seal for Air Performance 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
<a href="#">Paint Finishes and Color Guide</a>
<a href="#">Limited Warranty Document</a>



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