

# ACL445

## Stationary Acoustical Louver Formed Louver

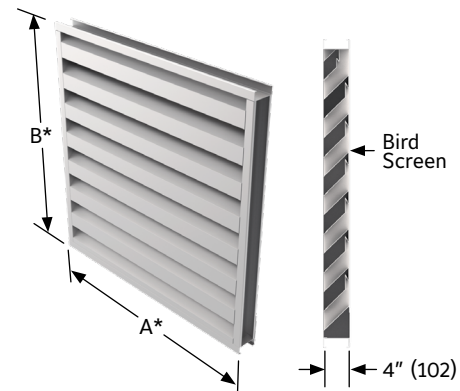


### APPLICATION

The ACL445 is a 4" 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. It provides high free area and low airflow resistance with sound absorbing insulated blades for areas that require noise separation.

### STANDARD CONSTRUCTION

<b>Frame</b>	4" (102) 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 6" (152) center to center.
<b>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>	5 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.



YEAR LIMITED  
WARRANTY

ISO9001  
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Octave Band Frequency (Hz)	Free Field Noise Reduction (db) Ruskatherm Blanket
1/63	9
2/125	11
3/250	9
4/500	11
5/1000	15
6/2000	17
7/4000	16
8/8000	16

### FEATURE

- ▶ Excellent Sound Attenuation (see table)
- ▶ 28% Free Area
- ▶ Beginning point of water penetration at 0.01oz./sq.ft. is 595 fpm (183 m/min.)
- ▶ Architecturally pleasing appearance

### VARIATIONS

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

- ▶ Various Screens
- ▶ Extended Sills
- ▶ Drip Caps
- ▶ Installation Angles, both clip and continuous angles available
- ▶ Filter Racks
- ▶ Security Bars
- ▶ Intragural Flanges
- ▶ Sleeves
- ▶ Optional finishes available at additional cost.

Please see [Paint Finishes and Color Guide](#) and [Finish Type Model Chart](#) for more details.

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

#### NOTES:

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

## FREE AREA GUIDE

Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of ACL445.

### Width – Inches and Millimeters

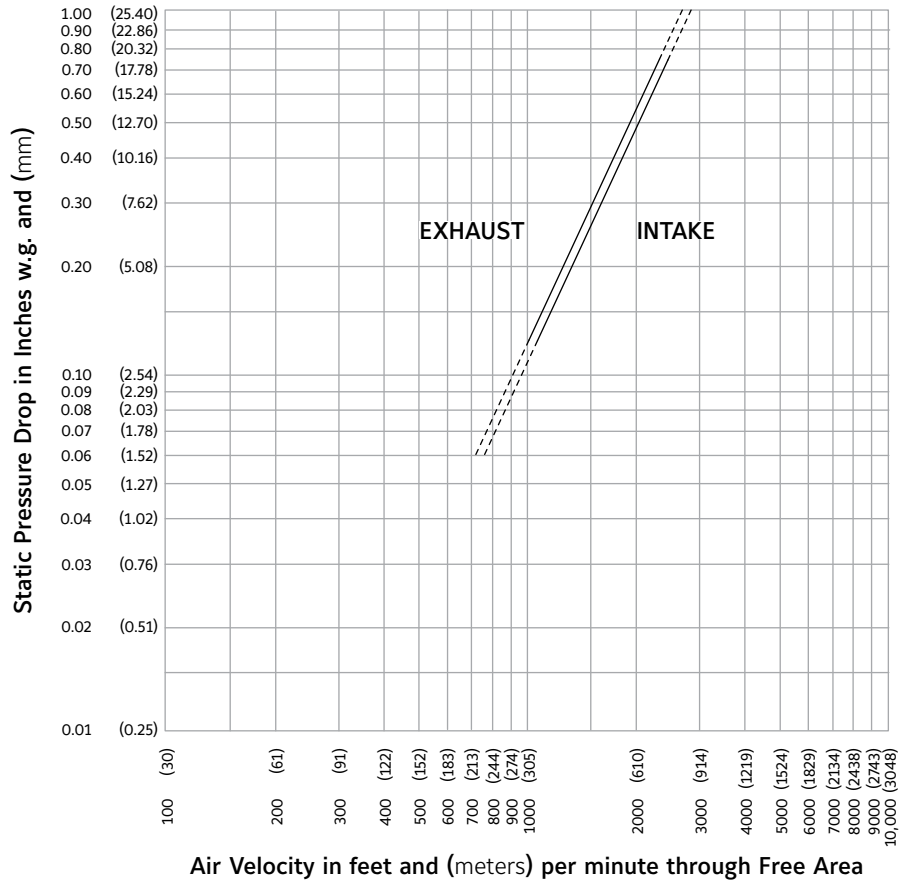
	12	18	24	30	36	42	48	54	60
	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50
<b>18</b>	<b>0.25</b>	<b>0.42</b>	<b>0.59</b>	<b>0.75</b>	<b>0.92</b>	<b>1.09</b>	<b>1.26</b>	<b>1.42</b>	<b>1.59</b>
0.45	0.02	0.04	0.05	0.07	0.09	0.10	0.12	0.14	0.15
<b>24</b>	<b>0.38</b>	<b>0.63</b>	<b>0.88</b>	<b>1.13</b>	<b>1.38</b>	<b>1.63</b>	<b>1.88</b>	<b>2.14</b>	<b>2.39</b>
0.60	0.04	0.06	0.08	0.11	0.13	0.15	0.17	0.20	0.22
<b>30</b>	<b>0.50</b>	<b>0.84</b>	<b>1.17</b>	<b>1.51</b>	<b>1.84</b>	<b>2.18</b>	<b>2.51</b>	<b>2.85</b>	<b>3.18</b>
0.75	0.05	0.08	0.11	0.14	0.17	0.20	0.23	0.26	0.29
<b>36</b>	<b>0.63</b>	<b>1.05</b>	<b>1.47</b>	<b>1.88</b>	<b>2.30</b>	<b>2.72</b>	<b>3.14</b>	<b>3.56</b>	<b>3.98</b>
0.90	0.06	0.10	0.14	0.18	0.21	0.25	0.29	0.33	0.37
<b>42</b>	<b>0.75</b>	<b>1.26</b>	<b>1.76</b>	<b>2.26</b>	<b>2.76</b>	<b>3.27</b>	<b>3.77</b>	<b>4.27</b>	<b>4.77</b>
1.05	0.07	0.12	0.16	0.21	0.26	0.30	0.35	0.40	0.44
<b>48</b>	<b>0.88</b>	<b>1.47</b>	<b>2.05</b>	<b>2.64</b>	<b>3.22</b>	<b>3.81</b>	<b>4.40</b>	<b>4.98</b>	<b>5.57</b>
1.20	0.08	0.14	0.19	0.25	0.30	0.35	0.41	0.46	0.52
<b>54</b>	<b>1.01</b>	<b>1.68</b>	<b>2.35</b>	<b>3.02</b>	<b>3.69</b>	<b>4.36</b>	<b>5.03</b>	<b>5.70</b>	<b>6.37</b>
1.35	0.09	0.16	0.22	0.28	0.34	0.41	0.47	0.53	0.59
<b>60</b>	<b>1.13</b>	<b>1.88</b>	<b>2.64</b>	<b>3.39</b>	<b>4.15</b>	<b>4.90</b>	<b>5.65</b>	<b>6.41</b>	<b>7.16</b>
1.50	0.11	0.18	0.25	0.32	0.39	0.46	0.53	0.60	0.67
<b>66</b>	<b>1.26</b>	<b>2.09</b>	<b>2.93</b>	<b>3.77</b>	<b>4.61</b>	<b>5.44</b>	<b>6.28</b>	<b>7.12</b>	<b>7.96</b>
1.65	0.12	0.19	0.27	0.35	0.43	0.51	0.58	0.66	0.74
<b>72</b>	<b>1.38</b>	<b>2.30</b>	<b>3.22</b>	<b>4.15</b>	<b>5.07</b>	<b>5.99</b>	<b>6.91</b>	<b>7.83</b>	<b>8.75</b>
1.80	0.13	0.21	0.30	0.39	0.47	0.56	0.64	0.73	0.81
<b>78</b>	<b>1.51</b>	<b>2.51</b>	<b>3.52</b>	<b>4.52</b>	<b>5.53</b>	<b>6.53</b>	<b>7.54</b>	<b>8.54</b>	<b>9.55</b>
1.95	0.14	0.23	0.33	0.42	0.51	0.61	0.70	0.79	0.89
<b>84</b>	<b>1.63</b>	<b>2.72</b>	<b>3.81</b>	<b>4.90</b>	<b>5.99</b>	<b>7.08</b>	<b>8.17</b>	<b>9.25</b>	<b>10.34</b>
2.10	0.15	0.25	0.35	0.46	0.56	0.66	0.76	0.86	0.96
<b>90</b>	<b>1.76</b>	<b>2.93</b>	<b>4.10</b>	<b>5.28</b>	<b>6.45</b>	<b>7.62</b>	<b>8.79</b>	<b>9.97</b>	<b>11.14</b>
2.25	0.16	0.27	0.38	0.49	0.60	0.71	0.82	0.93	1.04
<b>96</b>	<b>1.88</b>	<b>3.14</b>	<b>4.40</b>	<b>5.65</b>	<b>6.91</b>	<b>8.17</b>	<b>9.42</b>	<b>10.68</b>	<b>11.93</b>
2.40	0.18	0.29	0.41	0.53	0.64	0.76	0.88	0.99	1.11
<b>102</b>	<b>2.01</b>	<b>3.35</b>	<b>4.69</b>	<b>6.03</b>	<b>7.37</b>	<b>8.71</b>	<b>10.05</b>	<b>11.39</b>	<b>12.73</b>
2.55	0.19	0.31	0.44	0.56	0.69	0.81	0.93	1.06	1.18
<b>108</b>	<b>2.14</b>	<b>3.56</b>	<b>4.98</b>	<b>6.41</b>	<b>7.83</b>	<b>9.25</b>	<b>10.68</b>	<b>12.10</b>	<b>13.53</b>
2.70	0.20	0.33	0.46	0.60	0.73	0.86	0.99	1.13	1.26
<b>114</b>	<b>2.26</b>	<b>3.77</b>	<b>5.28</b>	<b>6.78</b>	<b>8.29</b>	<b>9.80</b>	<b>11.31</b>	<b>12.81</b>	<b>14.32</b>
2.85	0.21	0.35	0.49	0.63	0.77	0.91	1.05	1.19	1.33
<b>120</b>	<b>2.39</b>	<b>3.98</b>	<b>5.57</b>	<b>7.16</b>	<b>8.75</b>	<b>10.34</b>	<b>11.93</b>	<b>13.53</b>	<b>15.12</b>
3.00	0.22	0.37	0.52	0.67	0.81	0.96	1.11	1.26	1.41

Height – Inches and Millimeters



Ruskin Titus Gulf 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



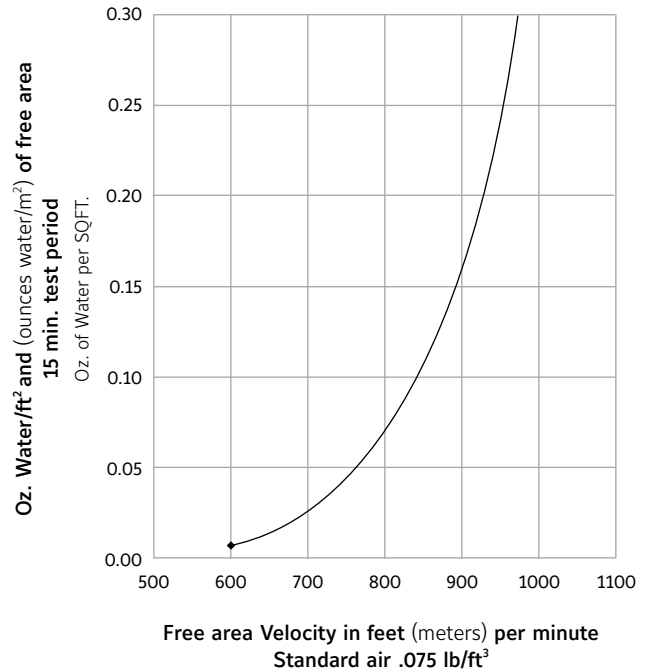
Ratings do not include the effect of a bird screen.

## 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 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**  
**595 fpm (181 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 4" (102) 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 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 ACL445 construction as follows:

Frame: 16 gage (1.6) galvanized steel channel.

Blades: 18 gage (1.0) using galvanized as standard construction match up steel exterior surface, 22 gage (.9) perforated steel interior surface that covers insulation. Blade angle 45° on 6" (152) 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.

### **i** LINKS TO IMPORTANT DOCUMENTS

#### Document Title

Paint Finishes and Color Guide

Limited Warranty Document



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