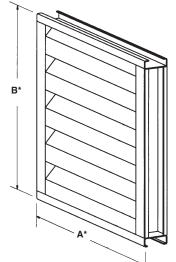
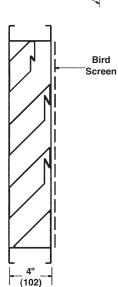




## **445RAAZ STATIONARY ACOUSTICAL LOUVER**

**FORMED STEEL** 





#### STANDARD CONSTRUCTION

#### **FRAME**

4" (102) deep, 16 gage (1.6) galvanized steel channel.

#### RI ADES

18 gage (1.3) galvanized steel exterior surface, with 22 gage (.9) perforated steel interior surface that covers insulation. Blades positioned at 45° angle and spaced approximately 6" (152) center to center.

#### **INSULATION**

Ruskatherm blanket.

#### **SCREEN**

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.

#### **FINISH**

Mill.

#### MINIMUM SIZE

12"w x 18"h (305 x 457).

## APPROXIMATE SHIPPING WEIGHT

5 lbs. per sq. ft.

### **MAXIMUM FACTORY ASSEMBLY SIZE**

Shall be 64 sq. ft. (6m²). Maximum single section size shall be 48" x 96" (1219 x 2438). Louvers larger than the maximum single section size will require field assembly of smaller sections.

#### **FEATURES**

The 445RAAZ offers insulated blades which provide effective sound attenuation and weather protection with an 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: baked enamel (modified fluoropolymer), epoxy, Kynar, Acrodize, prime coat, integral color and clear anodize. (Some variation in anodize color consistency is possible.) (Anodize finish available only on aluminum construction.)
- Formed aluminum frame with .100" (2.5) nominal wall thickness and .080" (1.6) blade with .040" (1) perforated aluminum interior surface.

| Octave Band<br>Frequency (Hz) | Free Field Noise<br>Reduction (db)<br>Ruskatherm<br>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  |

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

Dimensions in inches, parenthesis ( ) indicate millimeters.

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

| QTY. | SIZ     | ZE      | FRAME                      | VARIATIONS            |  |  |  |  |
|------|---------|---------|----------------------------|-----------------------|--|--|--|--|
|      | A*-WIDE | B*-HIGH |                            |                       |  |  |  |  |
|      |         |         |                            |                       |  |  |  |  |
|      |         |         |                            |                       |  |  |  |  |
|      |         |         |                            |                       |  |  |  |  |
|      |         |         |                            |                       |  |  |  |  |
|      | QTY.    | QTY     | QTY. SIZE  A*-WIDE B*-HIGH | A*-WIDE B*-HIGH FRAME |  |  |  |  |

PROJECT ARCH./ENGR. REPRESENTATIVE



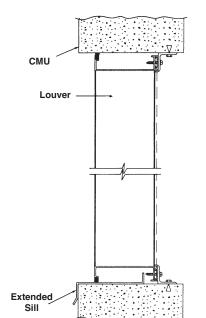
LOCATION CONTRACTOR DATE



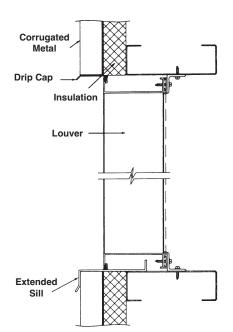
# **TYPICAL INSTALLATION DETAILS**



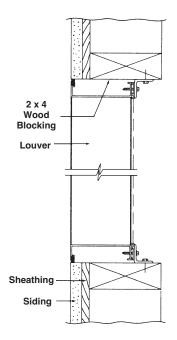
# **Masonry Wall**



## **Metal Panel Wall**



## **Wood Installation**

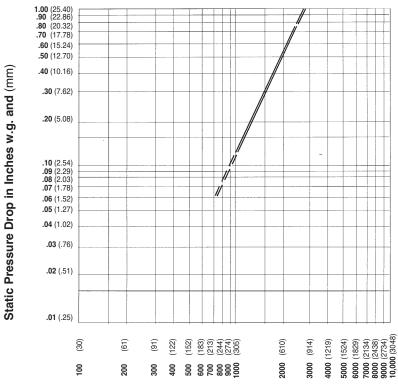


Accessories at additional cost.



### PRESSURE DROP



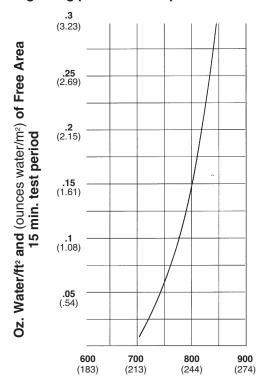


Ratings do not include the effect of a bird screen.

Air Velocity in feet and (meters) per minute through Free Area

### WATER PENETRATION GRAPH

Test size 48" wide x 48" high (1219 x 1219)
Beginning point of water penetration at .01 oz./sq. ft. is 703 fpm (214 m/min).





Reliable Products certifies that the 445RAAZ Louvers shown herein are 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.



### 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, 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 wind-load of 20 lbs. per sq. ft. (.96kPa) (equivalent of a 90 mph wind [145 KPH] - specifier may substitute any loading required).

Louvers shall be Reliable Model 445RAAZ construction as follows:

Frame: 16 gage (1.6) galvanized steel channel.

Blades: 20 gage (1.0) galvanized steel exterior surface, 22 gage

(.9) perforated steel interior surface that covers insula-

tion. Blade angle 45° on 6" (152) centers.

Screen: 1/2" mesh x 19 gage (13 x 1.1) galvanized steel in remov-

able frame.

Finish: Select finish specification from Reliable/Valspar 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 Reliable 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.

### **FREE AREA GUIDE**

Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of 445RAAZ.

Width – Inches and Meters

|  |                   | <b>12</b><br>305   | <b>18</b><br>457   | <b>24</b><br>610   | <b>30</b><br>762   | <b>36</b><br>915   | <b>42</b><br>1067  | <b>48</b><br>1219  | <b>54</b><br>1372  | <b>60</b><br>1524   | <b>66</b><br>1676    | <b>72</b><br>1829    | <b>78</b><br>1981 | <b>84</b><br>2134    | <b>90</b><br>2286  | <b>96</b><br>2438  |
|--|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-------------------|----------------------|--------------------|--------------------|
|  | <b>18</b> 457     | <b>.26</b><br>.02  | <b>.44</b><br>.04  | . <b>62</b><br>.06 | <b>.79</b><br>.07  | <b>.97</b><br>.09  | 1.15<br>.11        | <b>1.32</b><br>.12 | <b>1.41</b><br>.14 | <b>1.59</b><br>.14  | <b>1.77</b><br>.16   | <b>1.94</b> .17      | <b>2.12</b> .20   | <b>2.30</b><br>.21   | <b>2.47</b><br>.24 | <b>2.65</b><br>.25 |
|  | <b>24</b><br>610  | <b>.40</b><br>.04  | <b>.66</b><br>.06  | <b>.93</b><br>.09  | <b>1.19</b><br>.11 | <b>1.46</b><br>.14 | <b>1.72</b><br>.15 | <b>1.99</b><br>.18 | <b>2.12</b> .20    | <b>2.39</b> .22     | <b>2.65</b><br>.25   | <b>2.92</b><br>.27   | <b>3.18</b> .30   | <b>3.45</b><br>.32   | <b>3.71</b><br>.34 | <b>3.98</b><br>.36 |
|  | <b>30</b><br>762  | <b>.53</b><br>.05  | <b>.88</b><br>.08  | <b>1.24</b><br>.11 | <b>1.59</b><br>.15 | <b>1.94</b><br>.17 | <b>2.30</b><br>.21 | <b>2.65</b><br>.25 | <b>2.83</b><br>.27 | <b>3.18</b> .30     | <b>3.54</b><br>.23   | <b>3.89</b> .36      | <b>4.24</b> .39   | <b>4.60</b><br>.43   | <b>4.95</b><br>.46 | <b>5.30</b><br>.49 |
|  | <b>36</b><br>915  | <b>.66</b><br>.06  | <b>1.10</b> .10    | <b>1.55</b><br>.14 | <b>1.99</b><br>.18 | <b>2.43</b><br>.23 | <b>2.87</b> .27    | <b>3.31</b><br>.31 | <b>3.54</b><br>.33 | <b>3.98</b><br>.36  | <b>4.42</b><br>.42   | <b>4.86</b> .45      | <b>5.30</b> .50   | <b>5.74</b> .53      | <b>6.19</b> .58    | <b>6.63</b><br>.61 |
|  | <b>42</b> 1067    | <b>.80</b><br>.07  | <b>1.33</b><br>.12 | <b>1.86</b> .17    | <b>2.39</b><br>.22 | <b>2.92</b><br>.27 | <b>3.46</b><br>.32 | <b>3.98</b><br>.37 | <b>4.24</b> .39    | <b>4.77</b><br>.44  | <b>5.30</b><br>.49   | <b>5.83</b> .54      | <b>6.36</b> .58   | <b>6.89</b> .64      | <b>7.42</b> .69    | <b>7.95</b><br>.74 |
|  | <b>48</b><br>1219 | <b>.93</b><br>.09  | <b>1.55</b><br>.14 | <b>2.17</b> .20    | <b>2.78</b><br>.26 | <b>3.40</b><br>.32 | <b>4.02</b><br>.37 | <b>4.75</b><br>.43 | <b>4.95</b><br>.46 | <b>5.57</b> .52     | <b>6.19</b><br>.58   | <b>6.80</b> .63      | <b>7.42</b> .69   | <b>8.08</b><br>.76   | <b>8.66</b> .80    | <b>9.28</b><br>.86 |
|  | <b>54</b><br>1372 | <b>1.06</b><br>.10 | <b>1.77</b> .16    | <b>2.47</b> .23    | <b>3.18</b><br>.30 | <b>3.89</b><br>.36 | <b>4.60</b><br>.43 | <b>5.30</b><br>.49 | <b>5.66</b> .53    | <b>6.36</b> .59     | <b>7.07</b> .66      | <b>7.78</b> .72      | <b>8.48</b> .79   | <b>9.19</b> .85      | <b>9.90</b><br>.91 | <b>10.61</b> .99   |
|  | <b>60</b><br>1524 | <b>1.19</b><br>.11 | <b>1.99</b><br>.18 | <b>2.78</b> .26    | <b>3.58</b><br>.33 | <b>4.37</b><br>.41 | <b>5.17</b><br>.48 | <b>5.97</b> .55    | <b>6.36</b><br>.58 | <b>7.16</b> .67     | <b>7.95</b><br>.74   | <b>8.75</b><br>.81   | <b>9.54</b> .89   | <b>10.34</b> .96     | <b>11.14</b> 1.03  | <b>11.93</b> 1.11  |
|  | <b>66</b><br>1676 | <b>.133</b><br>.12 | <b>2.21</b> .21    | <b>3.09</b> .29    | <b>3.98</b><br>.36 | <b>4.86</b><br>.45 | <b>5.74</b> .53    | <b>6.63</b><br>.61 | <b>7.07</b> .66    | <b>7.95</b><br>.74  | <b>8.84</b><br>.82   | <b>9.72</b> .90      | <b>10.61</b> .99  | <b>11.49</b> 1.07    | <b>12.37</b> 1.15  | <b>13.26</b> 1.23  |
|  | <b>72</b><br>1829 | <b>1.46</b><br>.14 | <b>2.43</b><br>.23 | <b>3.40</b> .32    | <b>4.37</b><br>.41 | <b>5.35</b> .50    | <b>6.32</b> .58    | <b>7.29</b> .68    | <b>7.78</b> .72    | <b>8.75</b><br>.81  | <b>9.72</b> .90      | <b>10.69</b> .99     | <b>11.67</b> 1.08 | <b>12.64</b> 1.17    | <b>13.61</b> 1.26  | <b>14.58</b> 1.35  |
|  | <b>78</b><br>1981 | <b>1.59</b><br>.15 | <b>2.65</b><br>.25 | <b>3.71</b><br>.34 | <b>4.77</b><br>.44 | <b>5.83</b> .54    | <b>6.89</b><br>.64 | <b>7.95</b><br>.74 | <b>8.48</b> .79    | <b>9.54</b><br>.89  | <b>10.61</b> .99     | <b>11.67</b> 1.08    | <b>12.73</b> 1.18 | <b>13.79</b> 1.28    | <b>14.85</b> 1.38  | <b>15.91</b> 1.48  |
|  | <b>84</b><br>2134 | <b>1.72</b><br>.16 | <b>2.87</b><br>.27 | <b>4.02</b> .37    | <b>5.17</b><br>.48 | <b>6.32</b> .58    | <b>7.47</b> .69    | <b>8.62</b> .80    | <b>9.19</b><br>.85 | <b>10.34</b><br>.96 | <b>11.49</b><br>1.07 | <b>12.64</b><br>1.17 | <b>13.79</b> 1.28 | <b>14.94</b><br>1.39 | <b>16.08</b> 1.49  | <b>17.23</b> 1.60  |
|  | <b>90</b><br>2286 | <b>1.86</b><br>.17 | <b>3.09</b><br>.29 | <b>4.33</b><br>.40 | <b>5.57</b> .52    | <b>6.80</b><br>.63 | <b>8.04</b><br>.75 | <b>9.28</b><br>.86 | <b>9.90</b><br>.92 | <b>11.14</b> 1.03   | <b>12.37</b><br>1.15 | <b>13.61</b> 1.26    | <b>14.85</b> 1.38 | <b>16.08</b> 1.49    | <b>17.32</b> 1.62  | <b>18.56</b> 1.72  |
|  | <b>96</b><br>2438 | <b>1.99</b><br>.18 | <b>3.31</b><br>.31 | <b>4.64</b><br>.43 | <b>5.97</b> .55    | <b>7.29</b><br>.68 | <b>8.69</b><br>.81 | <b>9.94</b><br>.92 | <b>10.61</b> .99   | <b>11.93</b> 1.11   | <b>13.26</b> 1.23    | <b>14.58</b> 1.35    | <b>15.91</b> 1.48 | <b>17.23</b> 1.60    | <b>18.56</b> 1.72  | <b>19.88</b> 1.85  |