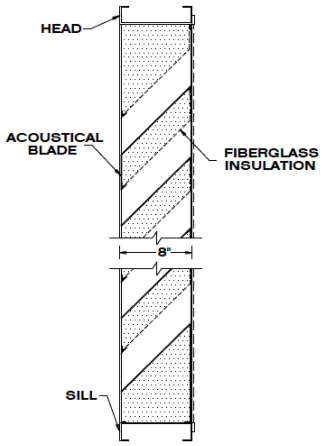
# Model A8370
# 8" (203.2 mm) Standard Fixed Acoustical Louver

## Material:

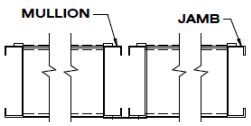
| | |
|---|---|
| **Material:** | 1100 Aluminum Alloy, Fiberglass Insulation protected by woven (self-extinguishing)100% Polyester sheeting |
| **Nominal Thickness (heads, sills, jambs, & mullions):** | 0.081" (2.06 mm) |
| **Nominal Blade Thickness:** | 0.081" (2.06 mm) |
| **Furnished With:** | Birdscreen: ½" (12.7mm) intercrimp aluminum mesh, 0.063" (1.60 mm) diameter wire removeable aluminum bird screen in an aluminum frame |
| **Additional Options (at additional cost):** | Insect screen (in lieu of bird screen), Continuous clip angles for attachment Sheet blank off, Insulated blank off Sill pans, Flange frames Integrated glazing frames |

## Test Summary:
## For a 4 Foot by 4 Foot Unit.
*Tested with mill finish and no screen*

- Free area = 3.68 ft² (0.34 m²)
- Percent free area = 23.0%
- Free area velocity at the point of beginning water penetration (@ 0.01oz. / ft² of free area based on a 15 minute interval test) = 942 FPM (4.79 m/s)
- Intake pressure drop at 742 FPM free area velocity = 0.05in $H_2O$ (12.4 Pa)




SECTION VIEW




## Acoustical Data:

The louver manufacturer shall submit test data from an accredited acoustical laboratory in accordance with ASTM Standard E90-90. The minimum acceptable performance through all octave bands is as follows: STC = 15

| Frequency (hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|
| Transmission Loss | 9 | 7 | 7 | 11 | 18 | 19 | 14 | 13 |
| Noise Reduction | 15 | 13 | 13 | 17 | 24 | 25 | 20 | 19 |



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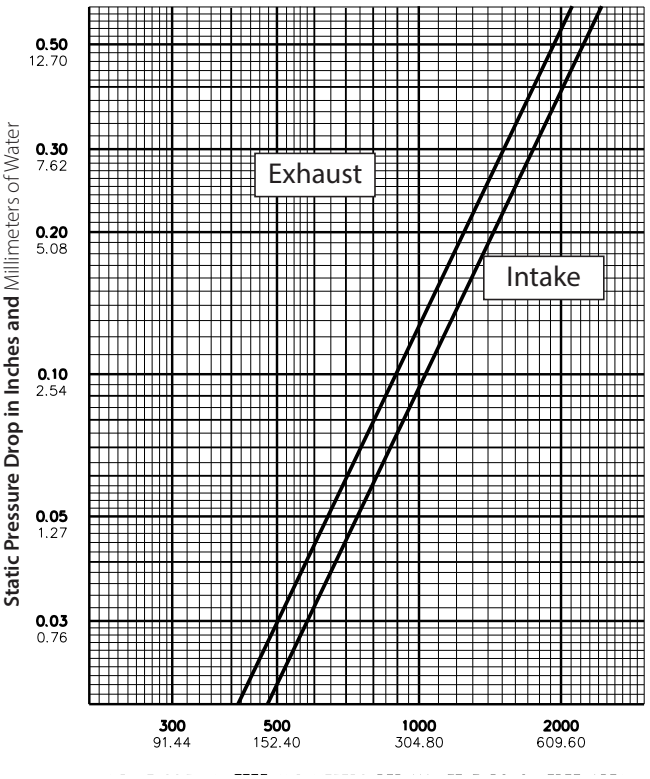
## Water Penetration Statement

AMCA defines the point of beginning water penetration as the free area velocity at which the AMCA water test has yielded 0.01 or less ounces of water per square foot of louver free area during a 15-minute test period.




Data corrected to standard air density.
48" x 48" (121.92cm x 121.92cm) louver tested to figure 5.5.

## Free Area Table (Free area in **sq. feet** and sq. meters)

For additional sizes, please visit:
https://www.c-sgroup.com/architectural-louvers/louvers-airflow-tool

**Width in Inches and** Meters

**Height in Inches and** Meters

| | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
|---|---|---|---|---|---|---|---|---|---|
| | 0.30 | 0.46 | 0.61 | 0.76 | 0.91 | 1.07 | 1.22 | 1.37 | 1.52 |
| **18** | **0.17** | **0.29** | **0.42** | **0.54** | **0.67** | **0.79** | **0.92** | **1.05** | **1.17** |
| 0.46 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 |
| **24** | **0.33** | **0.59** | **0.84** | **1.09** | **1.34** | **1.59** | **1.84** | **2.09** | **2.34** |
| 0.61 | 0.03 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 |
| **30** | **0.33** | **0.59** | **0.84** | **1.09** | **1.34** | **1.59** | **1.84** | **2.09** | **2.34** |
| 0.76 | 0.03 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 |
| **36** | **0.50** | **0.88** | **1.25** | **1.63** | **2.01** | **2.38** | **2.76** | **3.14** | **3.51** |
| 0.91 | 0.05 | 0.08 | 0.12 | 0.15 | 0.19 | 0.22 | 0.26 | 0.29 | 0.33 |
| **42** | **0.67** | **1.17** | **1.67** | **2.17** | **2.68** | **3.18** | **3.68** | **4.18** | **4.68** |
| 1.07 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 |
| **48** | **0.67** | **1.17** | **1.67** | **2.17** | **2.68** | **3.18** | **3.68** | **4.18** | **4.68** |
| 1.22 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 |
| **54** | **0.84** | **1.46** | **2.09** | **2.72** | **3.34** | **3.97** | **4.60** | **5.23** | **5.85** |
| 1.37 | 0.08 | 0.14 | 0.19 | 0.25 | 0.31 | 0.37 | 0.43 | 0.49 | 0.54 |
| **60** | **1.00** | **1.76** | **2.51** | **3.26** | **4.01** | **4.77** | **5.52** | **6.27** | **7.02** |
| 1.52 | 0.09 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.51 | 0.58 | 0.65 |
| **66** | **1.17** | **2.05** | **2.93** | **3.80** | **4.68** | **5.56** | **6.44** | **7.32** | **8.19** |
| 1.68 | 0.11 | 0.19 | 0.27 | 0.35 | 0.43 | 0.52 | 0.60 | 0.68 | 0.76 |
| **72** | **1.17** | **2.05** | **2.93** | **3.80** | **4.68** | **5.56** | **6.44** | **7.32** | **8.19** |
| 1.83 | 0.11 | 0.19 | 0.27 | 0.35 | 0.43 | 0.52 | 0.60 | 0.68 | 0.76 |
| **78** | **1.34** | **2.34** | **3.34** | **4.35** | **5.35** | **6.35** | **7.36** | **8.36** | **9.36** |
| 1.98 | 0.12 | 0.22 | 0.31 | 0.40 | 0.50 | 0.59 | 0.68 | 0.78 | 0.87 |
| **84** | **1.51** | **2.63** | **3.76** | **4.89** | **6.02** | **7.15** | **8.28** | **9.41** | **10.54** |
| 2.13 | 0.14 | 0.24 | 0.35 | 0.45 | 0.56 | 0.66 | 0.77 | 0.87 | 0.98 |
| **90** | **1.51** | **2.63** | **3.76** | **4.89** | **6.02** | **7.15** | **8.28** | **9.41** | **10.54** |
| 2.29 | 0.14 | 0.24 | 0.35 | 0.45 | 0.56 | 0.66 | 0.77 | 0.87 | 0.98 |
| **96** | **1.67** | **2.93** | **4.18** | **5.43** | **6.69** | **7.94** | **9.20** | **10.45** | **11.71** |
| 2.44 | 0.16 | 0.27 | 0.39 | 0.50 | 0.62 | 0.74 | 0.85 | 0.97 | 1.09 |
| **102** | **1.84** | **3.22** | **4.60** | **5.98** | **7.36** | **8.74** | **10.12** | **11.50** | **12.88** |
| 2.59 | 0.17 | 0.30 | 0.43 | 0.56 | 0.68 | 0.81 | 0.94 | 1.07 | 1.20 |
| **108** | **2.01** | **3.51** | **5.02** | **6.52** | **8.03** | **9.53** | **11.04** | **12.52** | **14.05** |
| 2.74 | 0.19 | 0.33 | 0.47 | 0.61 | 0.75 | 0.89 | 1.03 | 1.16 | 1.31 |
| **114** | **2.01** | **3.51** | **5.02** | **6.52** | **8.03** | **9.53** | **11.04** | **12.52** | **14.05** |
| 2.90 | 0.19 | 0.33 | 0.47 | 0.61 | 0.75 | 0.89 | 1.03 | 1.16 | 1.31 |
| **120** | **2.17** | **3.80** | **5.43** | **7.07** | **8.70** | **10.33** | **11.96** | **13.59** | **15.22** |
| 3.05 | 0.20 | 0.35 | 0.50 | 0.66 | 0.81 | 0.96 | 1.11 | 1.26 | 1.41 |
| **126** | **2.34** | **4.10** | **5.85** | **7.61** | **9.36** | **11.12** | **12.88** | **14.63** | **16.39** |
| 3.20 | 0.22 | 0.38 | 0.54 | 0.71 | 0.87 | 1.03 | 1.20 | 1.36 | 1.52 |
| **132** | **2.34** | **4.10** | **5.85** | **7.61** | **9.36** | **11.12** | **12.88** | **14.63** | **16.39** |
| 3.35 | 0.22 | 0.38 | 0.54 | 0.71 | 0.87 | 1.03 | 1.20 | 1.36 | 1.52 |
| **138** | **2.51** | **4.39** | **6.27** | **8.15** | **10.03** | **11.91** | **13.80** | **15.68** | **17.56** |
| 3.51 | 0.23 | 0.41 | 0.58 | 0.76 | 0.93 | 1.11 | 1.28 | 1.46 | 1.63 |
| **144** | **2.68** | **4.68** | **6.69** | **8.70** | **10.70** | **12.71** | **14.72** | **16.72** | **18.73** |
| 3.66 | 0.25 | 0.43 | 0.62 | 0.81 | 0.99 | 1.18 | 1.37 | 1.55 | 1.74 |
| **150** | **2.68** | **4.68** | **6.69** | **8.70** | **10.70** | **12.71** | **14.72** | **16.72** | **18.73** |
| 3.81 | 0.25 | 0.43 | 0.62 | 0.81 | 0.99 | 1.18 | 1.37 | 1.55 | 1.74 |
| **156** | **2.84** | **4.97** | **7.11** | **9.24** | **11.37** | **13.50** | **15.64** | **17.77** | **19.90** |
| 3.96 | 0.26 | 0.46 | 0.66 | 0.86 | 1.06 | 1.25 | 1.45 | 1.65 | 1.85 |
| **162** | **3.01** | **5.27** | **7.53** | **9.78** | **12.04** | **14.30** | **16.56** | **18.81** | **21.07** |
| 4.11 | 0.28 | 0.49 | 0.70 | 0.91 | 1.12 | 1.33 | 1.54 | 1.75 | 1.96 |
| **168** | **3.18** | **5.56** | **7.94** | **10.33** | **12.71** | **15.09** | **17.47** | **19.86** | **22.24** |
| 4.27 | 0.30 | 0.52 | 0.74 | 0.96 | 1.18 | 1.40 | 1.62 | 1.85 | 2.07 |
| **174** | **3.18** | **5.56** | **7.94** | **10.33** | **12.71** | **15.09** | **17.47** | **19.86** | **22.24** |
| 4.42 | 0.30 | 0.52 | 0.74 | 0.96 | 1.18 | 1.40 | 1.62 | 1.85 | 2.07 |
| **180** | **3.34** | **5.85** | **8.36** | **10.87** | **13.38** | **15.89** | **18.39** | **20.90** | **23.41** |
| 4.57 | 0.31 | 0.54 | 0.78 | 1.01 | 1.24 | 1.48 | 1.71 | 1.94 | 2.17 |
| **186** | **3.51** | **6.15** | **8.78** | **11.41** | **14.05** | **16.68** | **19.31** | **21.95** | **24.58** |
| 4.72 | 0.33 | 0.57 | 0.82 | 1.06 | 1.31 | 1.55 | 1.79 | 2.04 | 2.28 |
| **192** | **3.51** | **6.15** | **8.78** | **11.41** | **14.05** | **16.68** | **19.31** | **21.95** | **24.58** |
| 4.88 | 0.33 | 0.57 | 0.82 | 1.06 | 1.31 | 1.55 | 1.79 | 2.04 | 2.28 |

**Upper Numerals English Units**/Lower Numerals Metric Units

