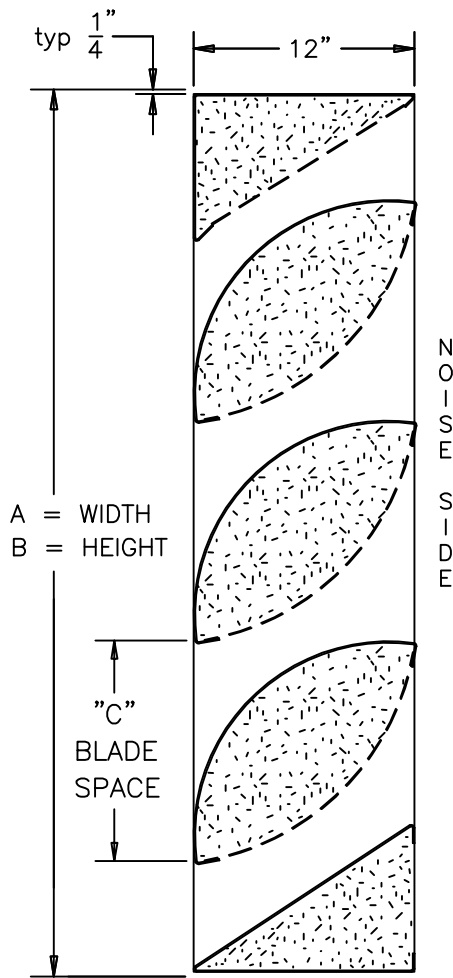


FABRICATED ALUMINUM, 12" DEEP, AIRFOIL BLADE,
HEAVY GAUGE, ACOUSTICAL FIXED TYPE BLADE



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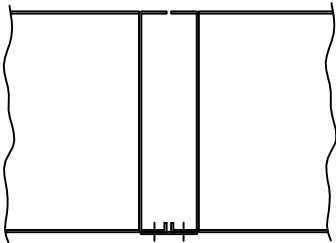
A = WIDTH
B = HEIGHT

"C"
BLADE
SPACE

SECTION VIEW

MODEL LAA-12AF
STANDARD SPECIFICATIONS

- FRAME: 12" DEEP, 12 GAUGE ALUMINUM.
- BLADES: 16 GAUGE ALUMINUM (NON NOISE SIDE).
20 GAUGE PERFORATED ALUMINUM (NOISE SIDE).
- INSULATION: WATER RESISTANT SOUND ABSORBING MATERIAL.
- FINISH: MILL.
- SCREEN: 1/2" REMOVABLE EXPANDED ALUMINUM BIRD
SCREEN, LOCATED ON INTERIOR (NOISE SIDE).
- MAXIMUM PANEL SIZE: 72" X 96".
- MINIMUM PANEL SIZE: 12" X 24".
- DIMENSIONS: "A" (WIDTH) AND "B" (HEIGHT) ARE OPENING
SIZES. LOUVERS ARE MADE 1/2" UNDERSIZE.



STANDARD VERTICAL
MULLION

MODEL No.	"C" BLADE SPACE
LAA-12AF	12"

LOUVER MODEL No. DESCRIPTION

LAA	-	12	AF
LOUVER ACOUSTICAL ALUMINUM		FRAME DEPTH	AIRFOIL BLADE



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awv american warming
and ventilating

A MESTEK COMPANY

7301 INTERNATIONAL DRIVE HOLLAND, OHIO
Phone (419) 865-5000 Fax (419) 865-1375

STC CLASS 13								
OCTAVE BAND	1	2	3	4	5	6	7	8
FREQUENCY (Hz)	63	125	250	500	1K	2K	4K	8K
TRANSMISSION LOSS (db)	7	6	7	13	15	13	10	9
FREE FIELD NOISE REDUCTION (db)	14	12	14	19	21	19	16	15

LAA-12AF ACOUSTICAL LOUVER

DRN. BY JMC	DWG. NO. LAA-12AF	REV.
DATE 04/13/16		

Water Penetration

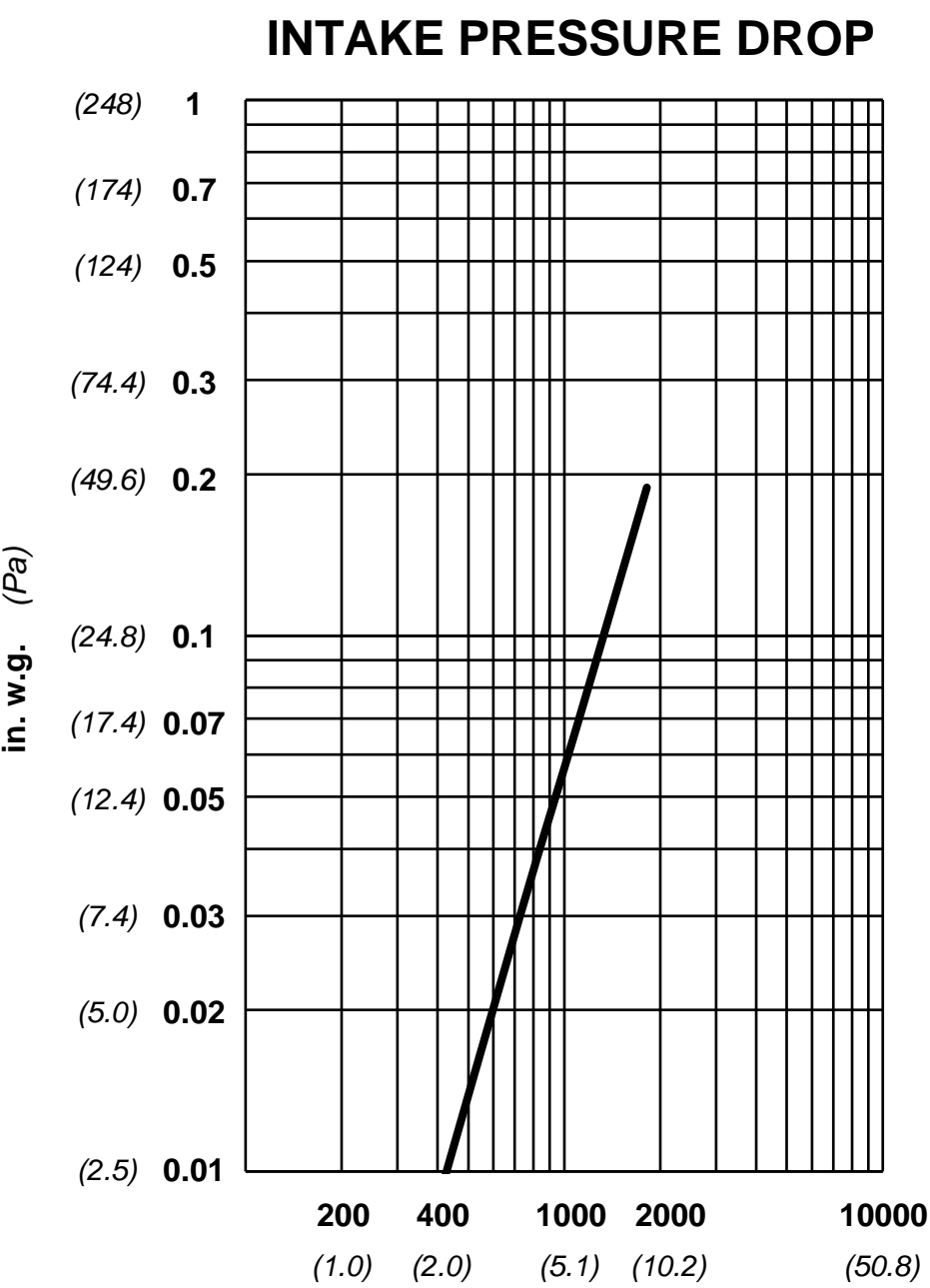
Pressure Drop

Free Area

: 0.01 oz (3.0 g) at 1140 fpm (5.79 m/s) recommended free area velocity

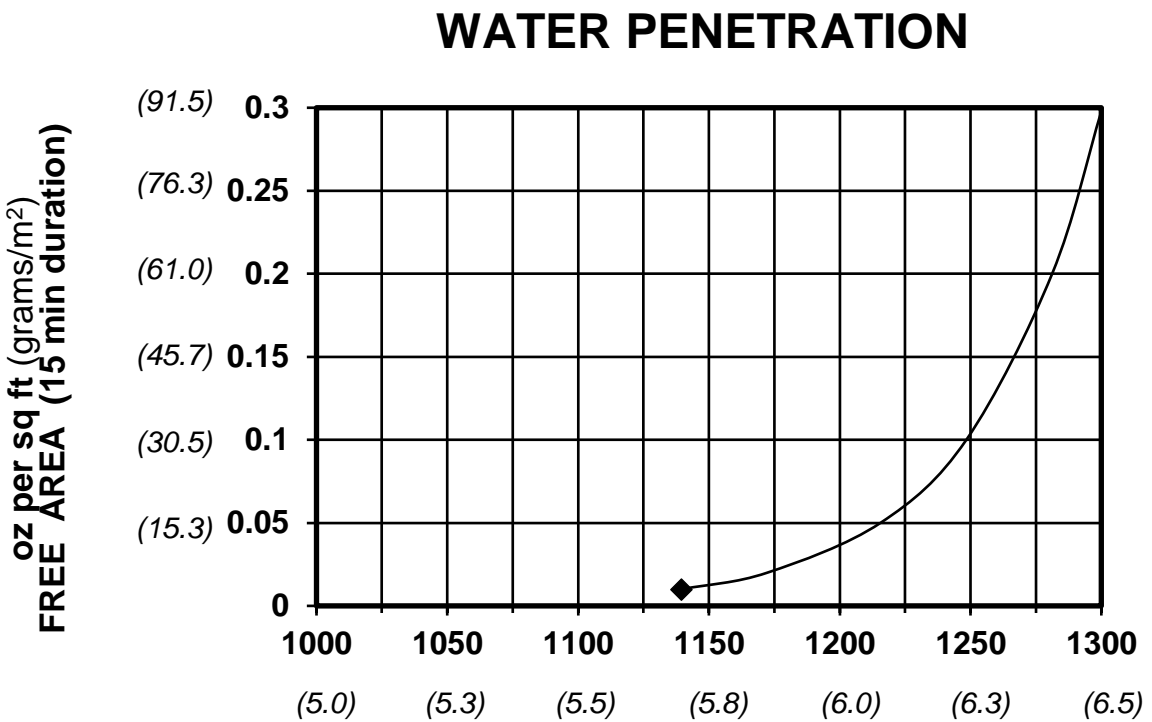
: 0.07 in wg (17.4 Pa.) at 1140 fpm (5.79 m/s) and 4021 scfm (1.90 scm/s)

: 3.79 sq ft (0.352 sq m) = 23.7% for 48" x 48" (1.22m x 1.22m) test size



FREE AREA IN SQUARE FEET (sq meters)

	WIDTH								
HEIGHT	in. <i>mm</i>	12 <i>305</i>	18 <i>457</i>	24 <i>610</i>	30 <i>762</i>	36 <i>914</i>	48 <i>1219</i>	60 <i>1524</i>	72 <i>1829</i>
	24 <i>610</i>	0.38 <i>0.035</i>	0.62 <i>0.058</i>	0.85 <i>0.079</i>	1.08 <i>0.100</i>	1.32 <i>0.123</i>	1.79 <i>0.166</i>	2.26 <i>0.210</i>	2.73 <i>0.254</i>
	30 <i>762</i>	0.53 <i>0.049</i>	0.86 <i>0.080</i>	1.19 <i>0.111</i>	1.52 <i>0.141</i>	1.84 <i>0.171</i>	2.50 <i>0.232</i>	3.16 <i>0.294</i>	3.81 <i>0.354</i>
	36 <i>914</i>	0.57 <i>0.053</i>	0.92 <i>0.085</i>	1.27 <i>0.118</i>	1.62 <i>0.151</i>	1.97 <i>0.183</i>	2.67 <i>0.248</i>	3.37 <i>0.313</i>	4.07 <i>0.378</i>
	48 <i>1219</i>	0.76 <i>0.071</i>	1.22 <i>0.113</i>	1.69 <i>0.157</i>	2.15 <i>0.200</i>	2.62 <i>0.243</i>	3.79 <i>0.352</i>	4.48 <i>0.416</i>	5.41 <i>0.503</i>
	60 <i>1524</i>	0.94 <i>0.087</i>	1.52 <i>0.141</i>	2.10 <i>0.195</i>	2.69 <i>0.250</i>	3.27 <i>0.304</i>	4.43 <i>0.412</i>	5.59 <i>0.519</i>	6.75 <i>0.627</i>
	72 <i>1829</i>	1.13 <i>0.105</i>	1.83 <i>0.170</i>	2.52 <i>0.234</i>	3.22 <i>0.299</i>	3.91 <i>0.363</i>	5.31 <i>0.493</i>	6.70 <i>0.622</i>	8.09 <i>0.752</i>
	84 <i>2134</i>	1.32 <i>0.123</i>	2.13 <i>0.198</i>	2.94 <i>0.273</i>	3.75 <i>0.348</i>	4.56 <i>0.424</i>	6.19 <i>0.575</i>	7.81 <i>0.726</i>	9.43 <i>0.876</i>
	96 <i>2438</i>	1.51 <i>0.140</i>	2.43 <i>0.226</i>	3.36 <i>0.312</i>	4.29 <i>0.399</i>	5.21 <i>0.484</i>	7.07 <i>0.657</i>	8.92 <i>0.829</i>	10.77 <i>1.001</i>



VELOCITY THROUGH FREE AREA fpm (m/s)
Airflow at standard air density - .075 lbs per cu ft
Ratings do not include the effect of a wire bird screen
Test based on a 48" x 48" test size per AMCA Standard 511
AMCA Figure 5.5 Test Setup



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LAA-12AF

Below is an explanation of how to use the AMCA Performance data for the recommended free area velocity of 1140 fpm (5.79 m/s).

- To determine minimum free area required for louver:
- Step #1:** Divide the required CFM flow by the maximum recommended free area velocity.
- Step #2:** Select the most desirable louver size, from the free area table, that meets the minimum free area requirement.
- Step #3:** Compare specified performance to the certified water penetration and pressure drop ratings.

VELOCITY THROUGH FREE AREA fpm (m/s)
Both maximum recommended free area velocity and beginning of water penetration are 1140 fpm at standard air -.075 lbs per cu ft.
The above water penetration data is based on mill finish, 48" x 48" test size per AMCA Standard 511.

Openings that require multiple louver panels in both width and height will require internal structural supports. It is recommended that large openings be divided with structural members so that the louvers will span either width or height with a single panel. Unusually high wind loading may require structural supports on non-multiple wide and multiple high assemblies. **Structural supports and mounting accessories are not supplied as a standard.**

Example: Given: 5000 CFM design flow

Step #1:

min. free area = $\frac{\text{Design CFM}}{\text{Max. Recommended Velocity}}$

$= \frac{5000}{1140} = 4.39 \text{ sq ft}$

Step #2: From the free area table above the approximate louver size is 48" x 60" = (4.43 sq ft)