ARROW UNITED INDUSTRIES

Model FS-401-(LF/HF) 4″ Deep Acoustical Louver

Description

The Model FS-401 (LF/HF) acoustic louver is a narrow, four inch deep formed metal stationary louver. It combines outstanding performance for both air and acoustics.

The FS-401-LF has excellent noise reduction capabilities for the lower frequency range from one to four octave bands.

The FS-401-HF has excellent noise reduction capabilities for the higher frequency range from five to eight octave bands.

Both models are available in many materials and finishes.

Suggested Specifications for Arrow United Industries Model FS-401-(LF/HF) acoustical formed metal stationary louver.

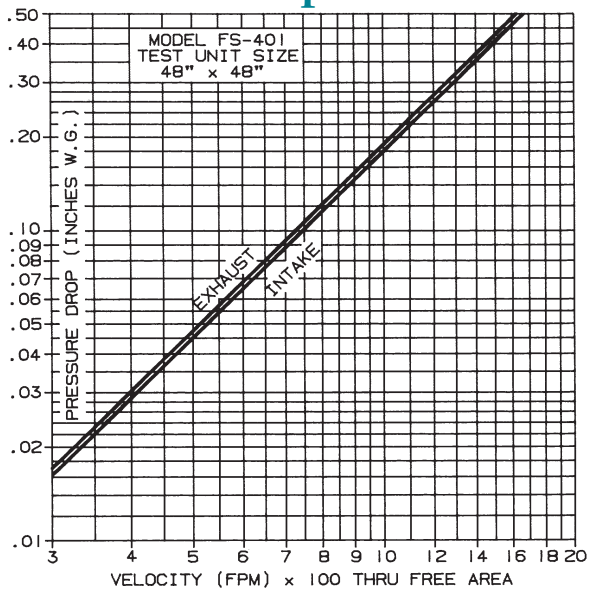
- Frame shall be 4″ deep, channel or flange type, 16 ga. galvanized steel.
- Blades shall be 18 ga. galvanized steel, be a fixed 45° angle, with 22 ga. galvanized perforated steel interior surface.
- Blades shall be filled with sound insulation. Screen shall be provided as ½″ sq. mesh, galvanized 19 ga. Finish to be mill.
- Minimum panel size: 12″ x 18″
- Maximum panel size: 60″ x 96″
- Louver shall pass a maximum free area velocity of 787 fpm with less than .11 in. wg pressure drop and carry .01 ounces of water per square foot of free area during a 15 minute period based on tests and procedures of AMCA Standard 500.
- Model FS-401-LF shall have Free Field of Noise Reduction for Octave Band 1 of 12 db, Band 2 of 14 db, Band 3 of 12 db, and Band 4 of 12 db.
- Model FS-201-HF shall have Free Field of Noise Reduction for Octave Band 5 of 14 db, Band 6 of 16 db, Band 7 of 16 db, and Band 8 of 18 db.

Performance Data

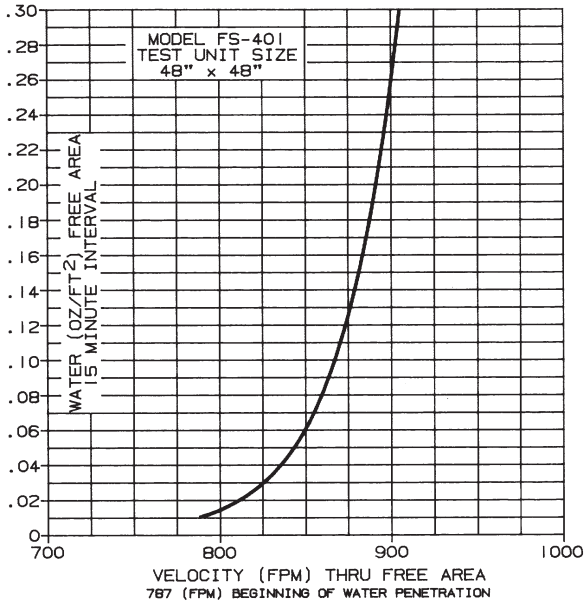
Tests of a 48" x 48" sample by an AMCA Registered Laboratory according to AMCA Standard 500 show water penetration to be .01 oz. per square foot at 787 FPM (Free Area Velocity) with less than .11" W.G. pressure drop (intake) and .12" W.G. pressure drop (exhaust).

Ratings do not include the effects of birdscreen.

Pressure Drop



Water Penetration



Sound Data

The Arrow Model FS-401 Acoustical Louver Low Frequency and High Frequency sound performance data is presented in two separate tables. Review the appropriate table and select the attenuation value for the design noise criteria corrective action required.

Model FS-401-LF (Low Frequency)

Octave Band / Frequency	1 / 63	2 / 125	3 / 250	4 / 500	5 / 1000	6 / 2000	7 / 4000	8 / 8000
Free Field of Noise Reduction (db)	12	14	12	12	9	11	13	15

Model FS-401-HF (High Frequency)

Octave Band / Frequency	1 / 63	2 / 125	3 / 250	4 / 500	5 / 1000	6 / 2000	7 / 4000	8 / 8000
Free Field of Noise Reduction (db)	8	7	9	10	14	16	16	18

Free Area

Height \ Width	12″	18″	24″	30″	36″	42″	48″	54″	60″
12″	.17	.27	.37	.48	.58	.68	.78	.89	.99
24″	.47	.75	1.03	1.32	1.60	1.88	2.16	2.24	2.72
36″	.68	1.09	1.50	1.91	2.32	2.73	3.13	3.54	3.95
48″	1.02	1.63	2.24	2.85	3.46	4.07	4.51	5.29	5.91
60″	1.19	1.91	2.62	3.34	4.05	4.77	5.48	6.20	6.91
72″	1.53	2.45	3.37	4.29	5.21	6.13	7.05	7.97	8.89
84″	1.72	2.76	3.79	4.83	5.86	6.90	7.93	8.96	10.00
96″	2.04	3.27	4.50	5.72	6.95	8.18	9.40	10.63	11.85

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