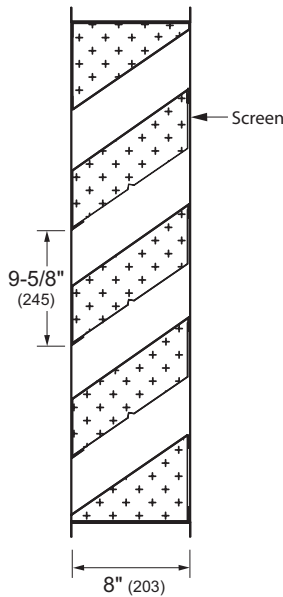


Model SAJ-835 Formed Metal Louver Formed Acoustical Blade

Dynasonics

Engineered for Silence

Certified Acoustical Performance



LOUVER MODEL	SAJ-835
MATERIAL: GALVANIZED	Steel
FRAME	16 gauge (1.61 mm)
BLADE	22 gauge (0.85 mm)
PERFORATED INTERIOR	26 gauge (0.55 mm)
LOUVER DEPTH	8" (203 mm)
BLADE ANGLE	35°
FACTORY ASSEMBLED SINGLE SECTION SIZE LIMITS	48"w x 96"h (1212 mm x 2438 mm) (Multiple Section: Unlimited)
Maximum	
Minimum	12" x 18" (305 mm x 457 mm)
STANDARD MULLION	Visible
STANDARD SCREEN	1/2" x 0.063" (12.7 mm x 1.6 mm) Expanded Flattened Aluminum Bird Screen
FINISH	Galvanized
AVERAGE WEIGHT	8#/ft. ² (39.06 kg./m ²)
FREE AREA — 4'x4' (1219 mm x 1219 mm) unit	5.3 ft. ² (0.49 m ²) — 33.1%

* Width and Height dimensions furnished approximately 1/2" (12.7 mm) under size

certified acoustical performance

Octave Band	2	3	4	5	6	7
Center Freq. (hz)	125	250	500	1000	2000	4000
Transmission Loss	7	7	13	20	22	17
Noise Reduction	13	13	19	26	28	23

Static Pressure Drop in In. wg (Pa)	.05 (12)	.10 (25)	.15 (37)	.20 (50)	.30 (75)	.40 (99)	.50 (124)	.60 (149)	.70 (174)	.80 (199)	.90 (224)	1.00 (248)
Face Velocity fpm (m/s)	283 (1.4)	405 (2.1)	498 (2.5)	573 (2.9)	708 (3.6)	817 (4.2)	910 (4.6)	994 (5)	1089 (5.5)	1171 (5.9)	1312 (6.7)	1405 (7.1)
Free Area Velocity fpm (m/s)	898 (4.6)	1286 (6.5)	1581 (8)	1819 (9.2)	2248 (11.4)	2594 (13.2)	2889 (14.7)	3156 (16)	3457 (17.6)	3717 (18.9)	4165 (21.2)	4460 (22.7)

OPTIONS

- Material
 - SAJ-835-STL**
 - Galvanized Steel
 - 14 gauge* (1.99 mm)
 - Stainless Steel
 - 304*
 - 316*
 - SAJ-835-ALM**
 - Aluminum*
 - Copper**
 - Lead coated copper**
- Screens:
 - Galvanized bird screen
 - Stainless steel bird screen
 - Aluminum mesh insect screen
 - Stainless steel mesh insect screen
 - Fiberglass mesh insect screen
 - Copper or bronze mesh insect screen
- Finishes:
 - Prime coat
 - Enamel
 - Anodize (aluminum only)
 - Clear
 - Light bronze
 - Dark bronze
 - Kynar 500 70%
 - Kynar 500 XL 70%
 - Champagne
 - Medium bronze
 - Black
- Integral flange frame (1-1/2") (38.1 mm)
- Hinged frame
- Hasp & latch
- Filter Rack

*Welded construction required. ** Tenon construction.

Suggested Specifications:

Furnish and install louvers as herein specified where indicated on the plans or as desired in schedules. Louvers shall be stationary blades in a 8" (203.2 mm) frame. Each factory assembled louver section shall be designed to withstand a minimum design loading of 30 pounds per square foot (146.47 kg./m²). Louver sizes too large for shipping in a single section shall be built up by the contractor from factory assembled louver sections to provide the overall required size. Louver frames, mullions and section joints shall be adequately supported from the building structure so as to withstand a design load of 30 pounds per square foot (146.47 kg./m²).

Model SAJ-835

Louvers shall be Dynasonics model SAJ-835 with 16 gauge (1.61 mm) wall thickness, blades shall be positioned at 35° angles.

Specifier select one of the following finish specifications:

- Louvers shall be supplied with a mill finish.
- Louvers shall be supplied with a (specifier select one: baked enamel, Kynar, anodized or prime coat) finish.
Color shall be (specify color from standard color selection chart).

Model SAJ-835 Formed Metal Louver Formed Acoustical Blade



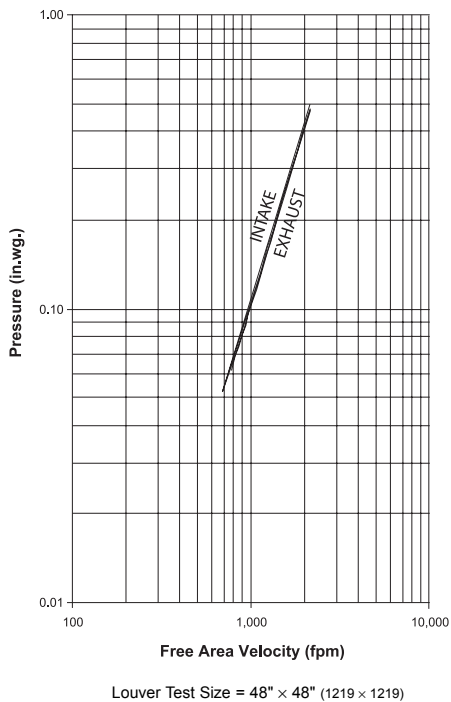
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Free Area (ft²)

		Width (Inches)																		
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
Height (Inches)	18	0.3	0.4	0.6	0.8	1.0	1.1	1.3	1.5	1.6	1.8	2.0	2.1	2.3	2.5	2.6	2.8	3.0	3.1	3.3
	24	0.5	0.7	1.0	1.3	1.6	1.8	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.2	5.4
	30	0.6	1.0	1.4	1.8	2.1	2.5	2.9	3.3	3.6	4.0	4.4	4.8	5.2	5.5	5.9	6.3	6.7	7.0	7.4
	36	0.8	1.3	1.8	2.2	2.7	3.2	3.7	4.2	4.7	5.1	5.6	6.1	6.6	7.1	7.5	8.0	8.5	9.0	9.5
	42	1.0	1.6	2.1	2.7	3.3	3.9	4.5	5.1	5.7	6.2	6.8	7.4	8.0	8.6	9.2	9.8	10.3	10.9	11.5
	48	1.2	1.8	2.5	3.2	3.9	4.6	5.3	6.0	6.7	7.4	8.1	8.7	9.4	10.1	10.8	11.5	12.2	12.9	13.6
	54	1.3	2.1	2.9	3.7	4.5	5.3	6.1	6.9	7.7	8.5	9.3	10.0	10.8	11.6	12.4	13.2	14.0	14.8	15.6
	60	1.5	2.4	3.3	4.2	5.1	6.0	6.9	7.8	8.7	9.6	10.5	11.4	12.3	13.1	14.0	14.9	15.8	16.7	17.6
	66	1.7	2.7	3.7	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7
	72	1.8	2.9	4.0	5.2	6.3	7.4	8.5	9.6	10.7	11.8	12.9	14.0	15.1	16.2	17.3	18.4	19.5	20.6	21.7
	78	2.0	3.2	4.4	5.6	6.8	8.0	9.3	10.5	11.7	12.9	14.1	15.3	16.5	17.7	18.9	20.1	21.3	22.5	23.7
	84	2.2	3.5	4.8	6.1	7.4	8.7	10.1	11.4	12.7	14.0	15.3	16.6	17.9	19.2	20.5	21.8	23.2	24.5	25.8
90	2.4	3.8	5.2	6.6	8.0	9.4	10.8	12.3	13.7	15.1	16.5	17.9	19.3	20.7	22.2	23.6	25.0	26.4	27.8	
96	2.5	4.0	5.6	7.1	8.6	10.1	11.6	13.2	14.7	16.2	17.7	19.2	20.7	22.3	23.8	25.3	26.8	28.3	29.9	
102	2.7	4.3	5.9	7.6	9.2	10.8	12.4	14.1	15.7	17.3	18.9	20.5	22.2	23.8	25.4	27.0	28.6	30.3	31.9	
108	2.9	4.6	6.3	8.1	9.8	11.5	13.2	15.0	16.7	18.4	20.1	21.9	23.6	25.3	27.0	28.8	30.5	32.2	33.9	
114	3.0	4.9	6.7	8.5	10.4	12.2	14.0	15.8	17.7	19.5	21.3	23.2	25.0	26.8	28.6	30.5	32.3	34.1	36.0	
120	3.2	5.2	7.1	9.0	10.9	12.9	14.8	16.7	18.7	20.6	22.5	24.5	26.4	28.3	30.3	32.2	34.1	36.1	38.0	

Pressure Loss



Selection Criteria

Follow the steps listed below to calculate the louver size needed to satisfy the required air volume while minimizing the adverse effects of water penetration and pressure loss.

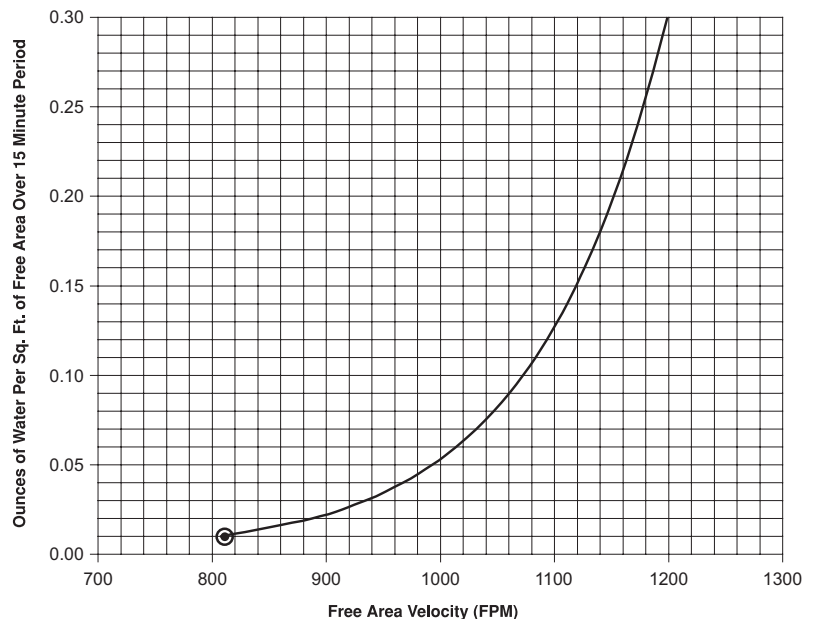
- Determine the Free Area Velocity (FAV) at the maximum allowable pressure loss using the *Pressure Loss* chart to the left. While job conditions vary, typically, the maximum allowable pressure loss should not exceed 0.15 in. wg., and the FAV for 0.15 in. wg. pressure loss is listed on the front page of this sheet.
- Intake Applications** If the FAV at the Beginning Point of Water Penetration (shown below) is less than the FAV from step 1, then use the FAV at the Beginning Point of Water Penetration in step 3, otherwise use the FAV from step 1.
- Exhaust Applications** Use the FAV from step 1 in step 3.
- Calculate the total louver square footage required using the following equation.

$$\frac{\text{Required Air Volume (cfm)}}{\text{FAV (fpm)}} \div \frac{\text{Free Area \% (from front page)}}{100} = \text{Required Louver Size in ft}^2$$

- Using the *Free Area* chart above, select a louver width and height that yields a free area ft² greater than or equal to the required louver size calculated in step 3.

Water Penetration

Beginning Point of Water Penetration = 808 fpm



Water Penetration

AMCA defines the beginning point of water penetration as the free area velocity at the intersection of a simple linear regression of test data and the line of 0.01 ounces of water per square foot of free area and is measured through a 48" x 48" louver during a 15 minute period. The AMCA water penetration test provides a method for comparing louver models and designs as to their efficiency in resisting the penetration of rainfall under specific lab conditions. Dynasonics recommends that intake louvers are selected with a reasonable margin of safety below the beginning point of water penetration in order to avoid unwanted penetration during severe storm conditions.