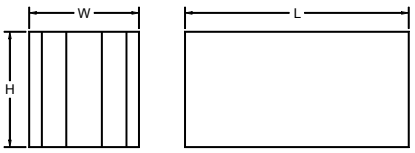
RSN-MV-L21

Rectangular, Straight, No-Fill, Medium Velocity Sounpak® Silencer

Availability
L: 3 feet and greater (sections if L>12ft)
W: 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P09-L21-M35

See bottom of page for explanation.

Table 1: Insertion Loss

Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
36	-2000	5	7	10	19	9	8	4	0
	0	4	6	7	18	7	7	5	4
	2000	6	6	9	19	9	8	5	3
60	-2000	6	9	11	20	9	9	5	0
	0	4	6	8	18	7	7	6	4
	2000	7	7	10	20	10	8	5	3
84	-2000	9	13	14	23	11	11	6	0
	0	6	9	9	21	9	9	7	5
	2000	8	10	13	23	12	10	7	3
120	-2000	12	17	17	29	14	13	7	0
	0	9	13	11	27	12	11	8	6
	2000	10	16	17	28	15	13	9	4

Note that ASTM inter-laboratory testing has shown insertion loss may vary as much as 6 dB in the 63hz band, and 3 dB for all other frequencies. Data in parenthesis () may be greater than shown due to limitations in laboratory equipment and/or facilities.

Table 2: Airflow Generated Sound Power Level

Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
-2000	50	42	43	42	47	56	53	38
-1000	(46)	(37)	(32)	37	32	32	33	27
1000	(48)	(39)	(31)	36	35	40	40	33
2000	52	47	41	43	48	57	54	39

Note that ASTM inter-laboratory testing has shown that generated noise may vary as much as 6 dB in the 63hz band, and 3 dB for all other frequencies. Data in parenthesis () may be less than shown due to limitations in laboratory equipment and/or facilities.

Table 3: Face Area Adjustment Factor

Silencer cross-sectional area (sq ft)							
1	2	4	8	16	32	64	128
-6	-3	0	+3	+6	+9	+12	+15

Look up silencer cross-sectional area in table. Add adjustment to each octave band airflow generated sound power level from Table 2.

Weight = 5.4 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1500	2000	2500
36	1.16	0.02	0.04	0.07	0.16	0.29	0.45
60	1.37	0.02	0.05	0.09	0.19	0.34	0.53
84	1.75	0.03	0.06	0.11	0.25	0.44	0.68
120	2.13	0.03	0.07	0.13	0.30	0.53	0.83

Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

The Quick Rating is a designation used for comparing different silencer models to note differences in energy consumption (pressure loss), low frequency performance, and mid-frequency performance . Quick Ratings for rectangular silencers may only be compared to other rectangular silencers. The P rating is the pressure drop at 1000 fpm where PXX is the pressure drop in hundredths of an inch wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 1000 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 1000 fpm. See the sheet titled “Quick Rating Guide” for further information.