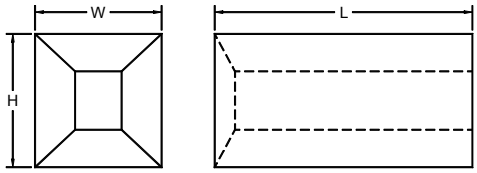
RSF-PV-L45

Rectangular, Straight, Fiber-Filled, Plenum 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 = P54-L45-M97

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	-750	8	6	13	17	34	20	17	14
	0	8	5	13	19	22	16	17	14
	750	6	4	12	17	21	16	14	10
60	-750	12	14	24	35	40	30	25	18
	0	12	13	24	36	41	28	24	18
	750	11	13	21	33	38	26	19	13
84	-750	14	17	34	47	50	40	28	17
	0	12	15	37	49	54	34	27	17
	750	11	17	30	46	51	32	22	14
120	-750	17	26	40	57	(60)	54	45	29
	0	15	23	39	56	(60)	42	39	26
	750	17	28	32	53	(60)	43	31	20

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
-750	(54)	48	45	44	44	43	42	39
-500	(53)	(41)	36	37	38	31	33	34
500	(52)	(40)	(29)	28	27	28	32	35
750	(54)	46	38	35	37	40	41	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 = 5.5 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		250	500	750	1000	1250	1500
36	7.20	0.03	0.11	0.25	0.45	0.70	1.01
60	8.73	0.03	0.14	0.31	0.54	0.85	1.22
84	11.00	0.04	0.17	0.39	0.69	1.07	1.54
120	13.05	0.05	0.20	0.46	0.81	1.27	1.83

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 . 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 at100 0 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.