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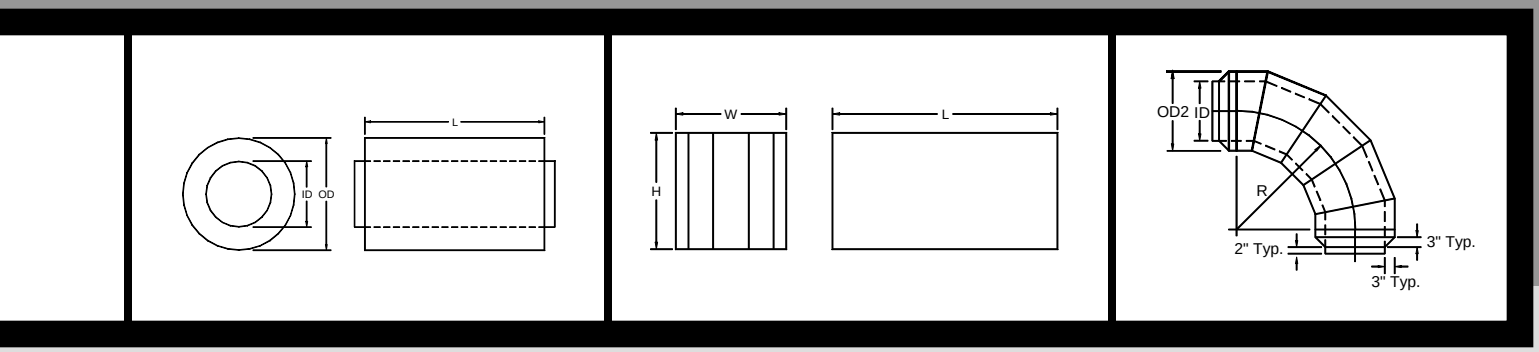

A McGill AirSilence™ product

SOUNPAK® SILENCERS PERFORMANCE DATA

ROUND and RECTANGULAR SILENCERS for HVAC and INDUSTRIAL APPLICATIONS

McGill AirSilence LLC

An enterprise of United McGill Corporation –
Family owned and operated since 1951

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Sounpak Silencer Model Naming Convention

Sounpak silencer designations follow the form ***ABC-DD-LEE*** where ***A*** is the silencer type, ***B*** is silencer geometry, ***C*** is the type of fill material, ***DD*** is the velocity indicator, and **L*EE*** is the low frequency insertion loss indicator. See the table below for more details.

ABC-DD-LEE			
Designation	**Description**	**Possible Values**	**Definition**
A	silencer type	B, C, R, S	B - bullet C - circular silencer R - rectangular silencer S - sound column
B	silencer geometry	C, E, L, S, T	C - cross-talk silencer E - elbow silencer L - louver silencer S - straight silencer T - transition silencer
C	type of fill material	F, N, V	F - fill (usually fiberglass) N - no fill V - vapor barrier film between fill material and baffle wall
DD	velocity indicator	PV, LV, MV, HV	PV - plenum velocity (recommended velocity range: < 750 fpm) LV - low velocity (recommended velocity range: 750 to 1500 fpm) MV - medium velocity (recommended velocity range: 1500 to 2500 fpm) HV - high velocity (recommended velocity range: > 2500 fpm)
EE	low frequency insertion loss indicator	depends on silencer model	RSF, RSV, RSN, CEN: EE is equal to the summation or total of insertion losses of the 63, 125 and 250 Hz octave band frequencies at 1000 fpm (or maximum listed velocity) for the 5 foot silencer model. REF,CSF,CEF: EE is equal to the average of the total insertion losses of the 63, 125 and 250 Hz octave band frequencies at 1000 fpm for all silencer sizes listed in data sheet. CSN: EE is equal to the average of the total insertion losses of the 63, 125 and 250 Hz octave band frequencies at 1000 fpm (or maximum listed velocity) for all silencer sizes listed in data sheet.

See the two examples on the next page.

Examples

1. A 5-foot, rectangular, fiber-filled, straight silencer has insertion losses as shown in the table below:

Velocity (fpm)	Insertion Loss (dB)		
	63 Hz	125 Hz	250 Hz
- 2000	7	11	19
- 1000	7	10	18
0	6	11	16
1000	7	12	17
2000	7	11	17

The silencer is recommended for use at a maximum velocity of 2000 fpm in commercial applications. Therefore, the designation would be **RSF-MV-L36**. The breakdown is as follows: **RSF** (**R**ectangular **S**traight **F**iber-filled) - **MV** (**M**edium **V**elocity range, 1500 to 2500 fpm) - **L33** (**L**ow frequency indicator is equal to 7 + 12 + 17 = **36**).

2. A rectangular elbow silencer with fiberglass insulation for use in a plenum (velocity < 750 fpm) has a combined insertion loss of 55 dB at 1000 fpm for the 63, 125 and 250 Hz octave bands. The elbow silencer would have the following designation: **REF-PV-L55**.

Silencers that have a high transmission loss casing, access door, removable top or some other feature, have an additional designator at the end of the silencer model name. See the table below for standard silencer accessories.

Accessory	Designator	Example
high transmission loss casing	HTL	REF-PV-L55**HTL**
access door	AD	RSV-MV-L44**AD**
removable top	RT	RSN-MV-L23**RT**
extended length	EL	RSF-LV-L37**EL**

"Quick Rating" Guide for Rectangular Sounpak Silencers

McGill AirSilence has devised a time-saving rating system to quickly identify potential silencer choices without having to sort through vast amounts of silencer octave band data. The rating system allows easy determination of relative performance among different silencer models.

Rectangular STRAIGHT Silencers

The rating follows the form of **PxxLyyMzz**, where:

"**xx**" is the **P**ressure drop in hundredths in.wg. of the silencer at 1000fpm,
"**yy**" is the summation of the insertion losses in the **L**ow-frequency octave bands (63, 125 and 250 Hz) at + 1000 fpm (or highest listed velocity),
"**zz**" is the summation of the insertion losses in the **M**id-frequency octave bands (500, 1000 and 2000 Hz) at + 1000 fpm (or highest listed velocity).

For example, a 5-foot model **RSF-LV-L32** silencer has the following pressure drop and insertion loss data:

Table 1

Face Velocity (fpm)	Insertion Loss (dB)							
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
-1000	7	12	13	30	43	35	22	9
0	6	11	14	29	44	36	23	15
1000	7	11	14	30	44	34	22	11

Table 2

Length (in)	Dynamic Pressure Loss (in wg)
	Face Velocity =1000 fpm
36	0.16
60	0.17
84	0.19
120	0.21

From **Table 2**, the **P** rating is 17. From **Table 1** the **L** rating is 32 (7 + 11 + 14), and the **M** rating is 108 (30 + 44 + 34). Therefore,

5-foot Quick Rating = **P17-L32-M108**.

To note differences between silencer models, we have used the **5-foot** length silencer to index each model and that is what is listed prominently on each silencer performance data sheet.

For comparing different lengths and models of silencers, refer to **Table 3** to see Quick Ratings for standard 3, 5, 7 and 10 foot length silencer models.

Table 3
Quick Ratings for Current Standard Length **Rectangular Straight Silencer** Models
(sorted in order of: construction, velocity, L rating)

Silencer Model	3 foot	5 foot [1]	7 foot	10 foot
Straight Fill Silencers				
RSF-PV-L45	P45-L22-M54	P54-L45-M97	P69-L58-M129	P81-L77-M156
RSF-PV-L47	--	P60-L47-M87	--	--
RSF-PV-L51	P65-L35-M92	P78-L51-M128	P90-L69-M145	P10-L87-M179
RSF-LV-L31	P16-L18-M68	P17-L31-M110	P19-L44-M139	P21-L59-M154
RSF-LV-L37	P21-L23-M55	P29-L37-M88	P36-L51-M106	P44-L68-M145
RSF-LV-L41	P14-L26-M52	P19-L41-M79	P28-L54-M106	P72-L73-M142
RSF-LV-L43	P25-L33-M101	P32-L43-M141	P40-L49-M148	P43-L59-M161
RSF-MV-L24	P07-L12-M51	P08-L24-M93	P12-L33-M120	P12-L43-M155
RSF-MV-L27	P07-L17-M51	P07-L27-M81	P08-L33-M107	P10-L45-M134
RSF-MV-L33	P06-L23-M45	P09-L33-M70	P14-L46-M93	P20-L62-M123
Straight Vapor Barrier Silencers				
RSV-LV-L25	P16-L19-M41	P17-L25-M77	P19-L39-M104	P21-L51-M136
RSV-LV-L35[2]	P14-L22-M28	P19-L35-M42	P28-L46-M56	P42-L62-M76
RSV-LV-L36	P25-L24-M50	P32-L36-M89	P40-L48-M128	P43-L58-M143
RSV-LV-L38[2]	P25-L25-M44	P32-L38-M68	P40-L55-M91	P43-L74-M120
RSV-LV-L41	P14-L26-M52	P19-L41-M79	P28-L54-M106	P42-L73-M142
RSV-MV-L22	P07-L13-M35	P08-L22-M56	P12-L31-M84	P12-L41-M120
RSV-MV-L25	P07-L13-M41	P07-L25-M60	P08-L33-M83	P10-L47-M105
RSV-MV-L27	P06-L19-M24	P09-L27-M37	P14-L37-M49	P20-L51-M64
Straight No-fill Silencers				
RSN-PV-L37	P59-L33-M51	P70-L37-M54	P89-L48-M65	P08-L67-M80
RSN-PV-L38	P59-L34-M48	P70-L38-M53	P89-L50-M62	P08-L71-M77
RSN-LV-L23	P19-L21-M33	P22-L23-M35	P28-L30-M42	P34-L41-M52
RSN-LV-L27	P19-L23-M39	P22-L27-M42	P28-L34-M50	P34-L46-M63
RSN-LV-L29	P19-L26-M41	P22-L29-M45	P28-L38-M54	P34-L53-M67
RSN-MV-L19	P07-L17-M26	P09-L19-M28	P11-L25-M34	P13-L35-M41
RSN-MV-L20	P10-L14-M30	P12-L20-M36	P17-L25-M44	P18-L29-M50
RSN-MV-L21	P07-L19-M34	P09-L21-M35	P11-L28-M42	P13-L38-M53
RSN-MV-L27	P10-L21-M35	P12-L27-M43	P17-L35-M52	P18-L42-M59
RSN-MV-L33	P10-L25-M46	P12-L33-M56	P17-L43-M68	P18-L51-M77

1 - All of McGill AirSilence rectangular silencer data sheets list the 5-foot Quick Rating for making comparisons between different silencer models.
2 - Silencer utilizes a FDA approved vapor barrier.

Rectangular ELBOW Silencers

The Quick Rating is the same as rectangular straight silencers. The rating follows the form of **PxxLyyMzz**, where:

"**xx**" is the **P**ressure drop in hundredths in.wg. of the silencer at 1000fpm,
"**yy**" is the summation of the insertion losses in the **L**ow-frequency octave bands (63, 125 and 250 Hz) at + 1000 fpm (or highest listed velocity),
"**zz**" is the summation of the insertion losses in the **M**id-frequency octave bands (500, 1000 and 2000 Hz) at + 1000 fpm (or highest listed velocity).

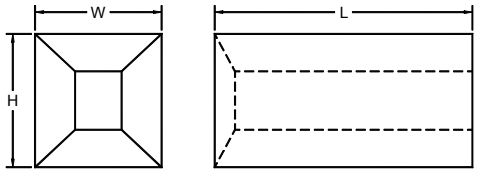
Table 4
Quick Ratings for Current Standard Length **Rectangular Elbow Silencer** Models
(sorted in order of: construction, velocity, L rating)

Elbow Fill Silencers		
Silencer Model	**L1 x L2**	**Quick Rating**
REF-LV-L30	36 x 36	P17-L30-M81
REF-LV-L35	36 x 60 60 x 36	P24-L35-M108
REF-LV-L37	36 x 36	P15-L37-M104

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

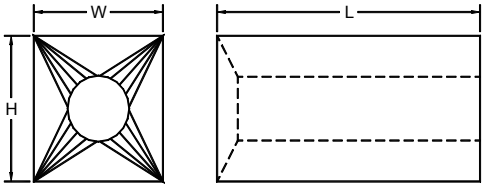
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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.

RSF-PV-L47

Rectangular, Straight, Fiber-Filled, Plenum-Velocity Sounpak® Silencer

Availability
L: 5 feet
W: 23.5-24.5, 47-48, 94-96 inches
H: 23.5-24.5, 47-48, 94-96 inches



5 ft Quick Rating = P60-L47-M87

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
60	-1000	11	13	24	33	35	24	20	10
	0	12	15	25	33	36	21	18	13
	1000	11	13	23	30	35	22	20	15

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
-1000	57	57	55	52	50	50	47	44
-500	53	42	37	36	33	25	26	32
500	52	40	29	25	23	28	32	35
1000	54	55	47	42	42	47	44	36

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
60	9.59	0.04	0.15	0.34	0.60	0.93	1.02

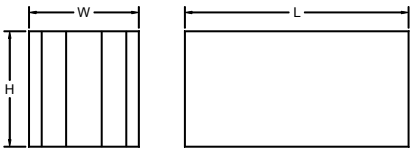
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-PV-L51

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 = P80-L51-M128

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	-500	6	11	19	27	32	29	21	18
	0	6	10	19	28	30	30	22	16
	500	6	10	19	28	32	32	21	18
60	-500	10	18	29	41	46	44	27	21
	0	10	17	28	40	44	44	29	21
	500	8	16	27	39	45	44	27	22
84	-500	14	23	39	47	51	48	33	25
	0	13	26	37	48	50	48	35	27
	500	10	23	36	46	51	48	33	27
120	-500	18	29	47	56	(60)	(60)	40	30
	0	17	32	46	58	(60)	(60)	46	32
	500	13	29	45	59	(60)	(60)	44	33

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
-500	58	44	38	48	43	39	25	32
500	51	41	36	32	35	28	24	27

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 =6.0 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	10.41	0.04	0.16	0.37	0.65	1.01	1.46
60	12.45	0.05	0.19	0.44	0.78	1.21	1.75
84	14.40	0.06	0.22	0.51	0.90	1.40	2.02
120	17.71	0.07	0.28	0.62	1.10	1.73	2.48

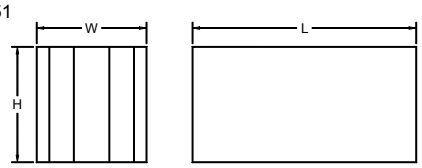
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-LV-L31

Rectangular, Straight, Fiber-Filled, Low-Velocity Sounpak® Silencer

Availability
L: 3 feet and greater (sections if L>12ft)
W: 7-8, 14.5-15.5, 29-31, 44-47 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P17-L31-M111

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	-1250	2	7	9	24	30	28	11	12
	0	2	6	8	19	27	20	16	12
	1250	4	6	9	22	27	21	17	11
60	-1250	5	12	17	36	46	45	17	15
	0	6	11	14	29	44	36	23	15
	1250	6	10	15	33	43	35	26	14
84	-1250	8	18	23	47	53	55	29	19
	0	7	16	20	37	54	47	37	23
	1250	7	17	21	41	54	44	37	21
120	-1250	9	22	31	47	53	(60)	35	23
	0	8	19	27	46	56	53	48	27
	1250	9	17	29	49	58	51	50	26

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
-1250	49	45	49	48	53	55	47	41
-750	32	36	30	32	28	30	22	27
750	36	30	28	28	29	25	16	17
1250	53	39	39	38	41	46	41	36

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 = 6.7 lb/ft^3

Table 4: Pressure Loss

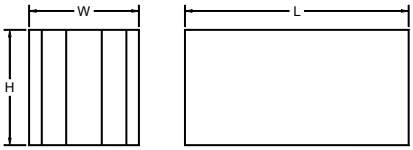
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	2.55	0.04	0.09	0.16	0.25	0.36	0.64
60	2.78	0.04	0.10	0.17	0.27	0.39	0.69
84	3.03	0.05	0.11	0.19	0.30	0.43	0.76
120	3.43	0.05	0.12	0.21	0.33	0.48	0.86

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-LV-L37

Rectangular, Straight, Fiber-Filled, Low-Velocity Sounpak® Silencer



Availability
L: 3 feet and greater (sections if L>12ft)
W: 13-14, 26-28, 52-56 inches
H: any length (72 inches practical limit)

5 ft Quick Rating = P29-L37-M89

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	-1250	3	9	13	20	20	16	11	10
	0	3	9	13	21	23	17	16	17
	1250	3	8	12	19	21	15	13	12
60	-1250	4	16	20	32	34	23	15	12
	0	5	16	20	34	38	24	21	21
	1250	5	14	18	30	35	23	18	16
84	-1250	5	22	27	35	40	30	19	15
	0	7	22	27	38	46	31	26	25
	1250	7	19	25	34	42	30	23	19
120	-1250	7	29	35	48	55	38	24	17
	0	9	29	36	52	(60)	42	34	29
	1250	9	26	33	48	58	39	30	22

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
-1250	59	57	53	53	53	54	46	36
-500	57	48	43	38	35	31	26	24
500	58	38	33	27	28	28	27	26
1250	60	52	43	42	45	46	40	34

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 = 5.6 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	3.34	0.01	0.05	0.12	0.21	0.33	0.47
60	4.73	0.02	0.07	0.17	0.29	0.46	0.66
84	5.79	0.02	0.09	0.20	0.36	0.56	0.81
120	7.13	0.03	0.11	0.25	0.44	0.69	1.00

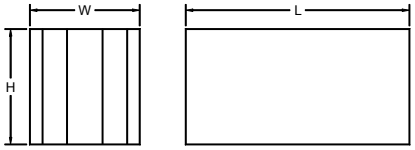
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-LV-L41

Rectangular, Straight, Fiber-Filled, Low-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 = P19-L41-M82

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	- 1500	6	7	13	20	20	16	14	14
	0	4	7	14	20	20	17	14	14
	1500	4	8	14	19	18	15	14	14
60	- 1500	9	11	21	32	32	22	18	17
	0	8	11	22	32	32	21	17	16
	1500	7	12	22	29	29	21	18	17
84	- 1500	12	14	28	43	43	29	21	20
	0	11	14	30	44	44	27	20	19
	1500	9	15	30	40	40	26	22	20
120	-1500	16	19	36	57	57	37	27	23
	0	15	19	39	58	60	36	27	22
	1500	12	21	40	53	54	35	29	24

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
-1500	57	53	50	54	52	51	44	29
750	55	48	42	46	42	34	22	29
750	52	40	38	33	40	33	24	25
1500	57	51	46	44	49	48	44	29

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 = 5.9 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		250	500	750	1000	1500	1750
36	2.28	0.01	0.04	0.08	0.14	0.32	0.44
60	3.06	0.01	0.05	0.11	0.19	0.43	0.58
84	4.55	0.02	0.07	0.16	0.28	0.64	0.87
120	6.81	0.03	0.11	0.24	0.42	0.96	1.30

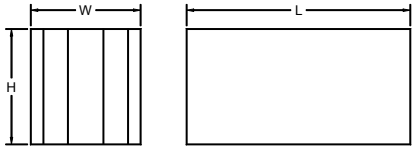
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-LV-L43

Rectangular, Straight, Fiber-Filled, Low-Velocity Sounpak® Silencer

Availability
L: 3 feet and greater (sections if L>12ft)
W: 5.5-6.5, 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P32-L43-M148

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	- 1000	7	11	20	28	37	35	27	18
	0	7	10	18	29	38	37	28	19
	1000	7	9	17	27	37	37	29	20
60	- 1000	9	15	26	42	51	48	37	22
	0	9	14	24	40	49	52	37	26
	1000	8	13	22	40	50	51	38	25
84	- 1000	11	17	29	44	51	52	48	30
	0	10	16	27	44	50	54	49	32
	1000	9	15	25	45	50	53	51	33
120	-1000	13	22	35	52	51	55	59	38
	0	12	19	32	53	53	56	(60)	43
	1000	11	18	30	53	52	56	58	43

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
-1000	46	41	50	50	57	55	48	42
-500	44	33	41	45	51	52	39	23
+500	34	29	29	29	30	27	24	22
+1000	45	43	38	35	37	39	35	33

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 = 7.9 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	3.96	0.06	0.14	0.25	0.39	0.56	0.99
60	5.09	0.08	0.18	0.32	0.50	0.71	1.27
84	6.39	0.10	0.22	0.40	0.62	0.90	1.59
120	6.94	0.11	0.24	0.43	0.68	0.97	1.73

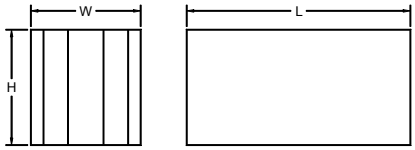
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-LV-L44

Rectangular, Straight, Fiber-Filled, Low-Velocity Sounpak® Silencer

Availability
L: 3 feet and greater (sections if L>12ft)
W: 5.5-6.5, 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P26-L44-M132

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	- 1000	6	11	18	30	36	29	18	11
	0	6	9	16	28	36	31	21	12
	1000	5	8	15	27	33	31	22	15
60	- 1000	9	16	30	43	50	43	31	18
	0	9	14	25	41	48	46	33	21
	1000	8	13	23	39	46	47	34	22
84	- 1000	11	23	38	48	51	48	40	23
	0	10	20	34	47	50	52	44	25
	1000	8	17	30	46	49	52	45	27
120	-1000	16	30	45	51	53	49	49	30
	0	14	26	43	52	52	53	52	33
	1000	11	24	40	53	54	55	53	35

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	63	61	58	56	58	64	68	67
- 1000	47	42	38	41	45	47	46	42
1000	47	42	37	35	37	38	37	37
2000	64	61	58	55	52	56	59	58

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 = 8.0 lb/ft^3

Table 4: Pressure Loss

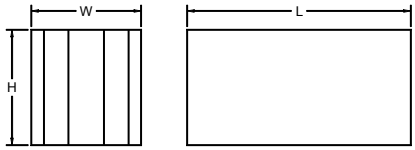
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	3.45	0.05	0.12	0.22	0.34	0.48	0.86
60	4.16	0.06	0.15	0.26	0.41	0.58	1.04
84	4.94	0.08	0.17	0.31	0.48	0.69	1.23
120	5.92	0.09	0.21	0.37	0.58	0.83	1.48

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-MV-L24

Rectangular, Straight, Fiber-Filled,
Medium-Velocity Soundpak® Silencer



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

5 ft Quick Rating = P08-L24-M93

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	1	5	7	15	28	24	12	10
	0	2	3	8	15	19	20	17	11
	2000	2	2	6	11	17	20	17	13
60	-2000	2	11	14	31	34	36	17	14
	0	3	9	14	29	36	35	24	14
	2000	3	7	11	21	31	33	23	16
84	-2000	3	13	19	41	42	48	19	12
	0	4	10	22	39	47	42	27	13
	2000	4	10	15	29	42	40	27	17
120	-2000	9	20	23	50	(60)	(60)	31	21
	0	7	15	23	44	(60)	53	38	21
	2000	9	16	16	34	59	55	38	25

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	54	53	57	54	60	62	54	47
- 1000	37	41	45	39	43	42	38	27
1000	39	36	35	37	33	36	30	32
2000	53	52	50	48	46	55	48	45

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 = 6.2 lb/ft^3

Table 4: Pressure Loss

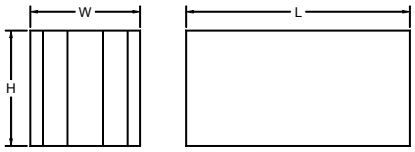
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
36	1.05	0.02	0.07	0.15	0.26	0.41	0.59
60	1.25	0.02	0.08	0.18	0.31	0.49	0.70
84	1.87	0.03	0.12	0.26	0.47	0.73	1.05
120	1.98	0.03	0.12	0.28	0.49	0.77	1.11

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-MV-L27

Rectangular, Straight, Fiber-Filled,
Medium-Velocity Sounpak® Silencer



Availability
L: 3 feet and greater (sections if L>12ft)
W: 8.5-9.5, 17-19, 34-38 inches
H: any length (72 inches practical limit)

5 ft Quick Rating = P07-L27-M81

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	1	4	8	20	19	19	16	21
	0	4	3	11	19	20	15	18	16
	2000	4	4	8	14	19	15	14	13
60	-2000	4	7	14	32	33	27	20	23
	0	5	7	18	31	32	23	21	19
	2000	5	6	13	23	31	22	19	17
84	-2000	4	10	18	40	46	32	19	19
	0	7	9	21	39	48	25	25	19
	2000	5	8	16	28	46	27	22	18
120	-2000	7	12	27	50	54	43	26	25
	0	9	10	30	49	57	34	31	20
	2000	8	10	22	38	54	35	28	17

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	58	52	58	56	59	60	55	47
- 1000	39	38	47	43	47	44	36	27
1000	32	32	33	33	34	38	27	25
2000	61	49	46	45	45	55	50	44

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 = 6.4 lb/ft^3

Table 4: Pressure Loss

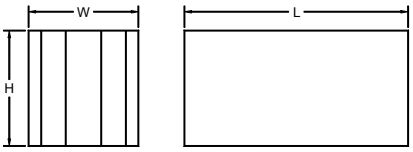
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
36	1.08	0.02	0.07	0.15	0.27	0.42	0.61
60	1.10	0.02	0.07	0.15	0.27	0.43	0.62
84	1.30	0.02	0.08	0.18	0.32	0.51	0.73
120	1.68	0.03	0.10	0.24	0.42	0.65	0.94

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSF-MV-L33

Rectangular, Straight, Fiber-Filled, 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-L33-M70

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	-2500	5	7	12	19	18	13	14	11
	0	4	7	12	17	17	11	10	7
	2500	4	7	12	16	17	11	9	8
60	-2500	7	11	18	30	29	17	18	15
	0	6	10	17	27	27	16	13	10
	2500	5	10	17	26	27	16	12	10
84	-2500	11	14	24	39	39	22	21	17
	0	10	14	23	36	37	20	16	12
	2500	8	14	23	35	38	20	14	12
120	-2500	15	19	32	52	50	28	24	19
	0	14	18	31	49	47	26	18	14
	2500	11	18	31	48	49	26	17	15

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
-2500	59	58	57	56	58	62	56	44
-1000	37	41	45	39	43	42	38	27
1000	39	36	35	37	33	36	30	32
2500	61	59	56	50	51	55	51	34

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 = 5.8 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
36	0.91	0.01	0.06	0.13	0.23	0.35	0.51
60	1.43	0.02	0.09	0.20	0.36	0.56	0.80
84	2.17	0.03	0.14	0.30	0.54	0.85	1.22
120	3.28	0.05	0.20	0.46	0.82	1.28	1.84

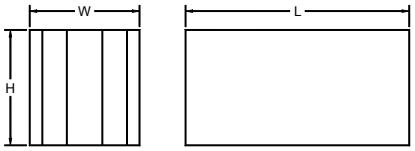
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-PV-L45

Rectangular, Straight,
Plenum-Velocity Sounpak® Silencer
with Vapor Barrier

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 = P78-L45-M82

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	13	14	14	17	20	19	18
	0	8	14	14	14	19	19	17	14
	750	9	14	16	15	20	19	16	14
60	- 750	16	15	19	22	32	31	23	20
	0	15	17	19	21	30	26	23	19
	750	12	16	21	24	30	27	23	18
84	- 750	19	23	30	32	44	40	35	37
	0	18	29	27	31	40	38	33	36
	750	16	24	34	35	43	38	31	25
120	- 750	22	24	38	41	52	54	33	32
	0	20	31	42	44	50	55	36	31
	750	19	26	53	52	53	55	39	28

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
-1500	57	53	50	54	52	51	44	29
- 750	55	48	42	46	42	34	22	29
750	52	40	38	33	40	33	24	25
1500	57	51	46	44	49	48	44	29

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 = 5.9 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		125	250	375	500	625	750
36	10.41	0.01	0.04	0.09	0.16	0.25	0.37
60	12.45	0.01	0.05	0.11	0.19	0.30	0.44
84	14.40	0.01	0.06	0.13	0.22	0.35	0.51
120	17.71	0.02	0.07	0.16	0.28	0.43	0.62

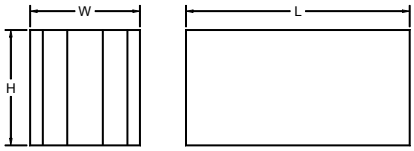
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-LV-L25

Rectangular, Straight,
Low-Velocity Sounpak® Silencer
with Vapor Barrier

Availability
L: 3 feet and greater (sections if L>12ft)
W: 7-8, 14-16, 28-32, 42-48 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P17-L25-M77

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	-1250	3	7	10	10	18	18	12	12
	0	3	6	9	12	21	14	14	12
	1250	3	6	10	10	16	14	15	10
60	-1250	7	9	13	20	30	29	18	17
	0	6	9	14	24	31	23	22	19
	1250	4	8	12	24	30	23	21	13
84	-1250	10	14	20	29	41	38	23	20
	0	7	14	21	30	41	31	27	23
	1250	6	12	20	32	41	32	29	20
120	-1250	11	22	29	36	50	48	29	26
	0	8	20	29	40	52	39	33	27
	1250	6	17	26	44	53	40	36	26

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
-1250	49	45	49	48	53	55	47	41
-750	32	36	30	32	28	30	22	27
750	36	30	28	28	29	25	16	17
1250	53	39	39	38	41	46	41	36

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 = 6.7 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	2.55	0.04	0.09	0.16	0.25	0.36	0.64
60	2.78	0.04	0.10	0.17	0.27	0.39	0.69
84	3.03	0.05	0.11	0.19	0.30	0.43	0.76
120	3.43	0.05	0.12	0.21	0.33	0.48	0.86

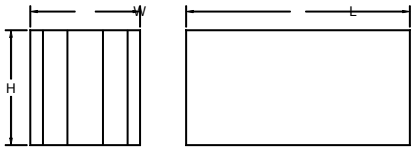
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-LV-L36

Rectangular, Straight,
Low-Velocity Sounpak® Silencer
with Vapor Barrier

Availability
L: 3 ft and greater (sections if L>12ft)
W: 5.5-6.5, 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inch practical limit)



5 ft Quick Rating = P32-L36-M89

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	- 1000	7	9	11	12	21	23	19	16
	0	7	9	11	13	19	21	18	14
	1000	6	8	10	12	17	21	18	14
60	- 1000	9	12	17	26	37	34	23	16
	0	11	13	19	26	33	33	23	17
	1000	8	12	16	24	32	33	25	18
84	- 1000	11	15	23	35	50	47	34	26
	0	14	15	23	35	45	47	34	25
	1000	12	14	22	35	46	47	37	25
120	-1000	12	20	30	41	52	53	43	33
	0	12	18	30	42	48	52	42	30
	1000	12	17	29	43	47	53	44	31

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
-1000	46	41	50	50	57	55	48	42
-500	44	33	41	45	51	52	39	23
+500	34	29	29	29	30	27	24	22
+1000	45	43	38	35	37	39	35	33

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 = 7.9 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	3.96	0.06	0.14	0.25	0.39	0.56	0.99
60	5.09	0.08	0.18	0.32	0.50	0.71	1.27
84	6.39	0.10	0.22	0.40	0.62	0.90	1.59
120	6.94	0.11	0.24	0.43	0.68	0.97	1.73

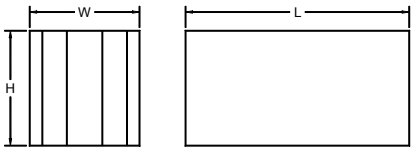
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-LV-L41

Rectangular, Straight,
Low-Velocity Sounpak® Silencer
withVapor Barrier

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 = P19-L41-M81

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	- 1500	6	7	13	20	20	16	14	14
	0	4	7	14	20	20	17	14	14
	1500	4	8	14	19	18	15	14	14
60	- 1500	9	11	21	32	32	22	18	17
	0	8	11	22	32	32	21	17	16
	1500	7	12	22	29	29	21	18	17
84	- 1500	12	14	28	43	43	29	21	20
	0	11	14	30	44	44	27	20	19
	1500	9	15	30	40	40	26	22	20
120	-1500	16	19	36	57	57	37	27	23
	0	15	19	39	58	60	36	27	22
	1500	12	21	40	53	54	35	29	24

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
-1500	57	53	50	54	52	51	44	29
750	55	48	42	46	42	34	22	29
750	52	40	38	33	40	33	24	25
1500	57	51	46	44	49	48	44	29

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 = 5.9 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		250	500	750	1000	1500	1750
36	2.28	0.01	0.04	0.08	0.14	0.32	0.44
60	3.06	0.01	0.05	0.11	0.19	0.43	0.58
84	4.55	0.02	0.07	0.16	0.28	0.64	0.87
120	6.81	0.03	0.11	0.24	0.42	0.96	1.30

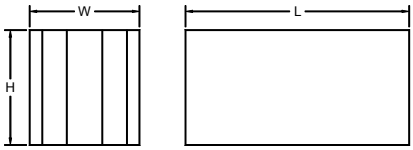
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-LV-L35

Rectangular, Straight, Fiber-Filled, Low-Velocity Sounpak® Silencer with **FDA Approved** Vapor Barrier

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 = P19-L35-M42

See bottom of page for explanation.

Table 1: Insertion Loss

Length (in)	Face Velocity (fpm)	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
36	- 1500	6	9	9	11	10	10	10	10
	0	5	8	9	10	10	10	11	10
	1500	5	8	9	10	9	9	9	9
60	- 1500	10	14	15	17	15	13	12	12
	0	9	13	15	16	16	13	13	12
	1500	9	12	14	15	15	12	11	11
84	- 1500	14	18	20	23	20	17	14	14
	0	13	17	20	22	22	16	15	14
	1500	12	15	19	20	21	15	13	13
120	-1500	18	24	26	30	27	22	18	17
	0	17	23	27	29	30	22	20	17
	1500	16	21	25	28	28	20	18	15

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
-1500	57	53	50	54	52	51	44	29
750	55	48	42	46	42	34	22	29
750	52	40	38	33	40	33	24	25
1500	57	51	46	44	49	48	44	29

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 = 5.9 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		250	500	750	1000	1500	1750
36	2.28	0.01	0.04	0.08	0.14	0.32	0.44
60	3.06	0.01	0.05	0.11	0.19	0.43	0.58
84	4.55	0.02	0.07	0.16	0.28	0.64	0.87
120	6.81	0.03	0.11	0.24	0.42	0.96	1.30

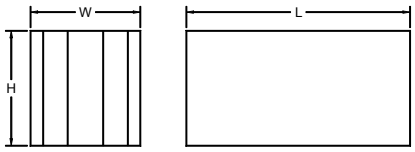
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-LV-L38

Rectangular, Straight, Low-Velocity Sounpak® Silencer with **FDA Approved** Vapor Barrier

Availability
L: 3 feet and greater (sections if L>12ft)
W: 5.5-6.5, 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P32-L38-M68

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	-1250	5	9	13	20	16	11	11	9
	0	4	8	14	23	14	13	11	11
	1250	4	9	12	20	12	12	12	11
60	-1250	9	13	21	30	24	16	15	15
	0	7	12	21	35	24	18	17	20
	1250	7	12	19	30	21	17	16	18
84	-1250	12	17	28	42	30	21	18	17
	0	11	17	29	47	30	26	19	23
	1250	11	18	26	41	26	24	19	23
120	-1250	15	23	37	57	39	27	21	19
	0	15	22	38	63	38	35	22	28
	1250	15	25	34	54	33	33	23	29

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
-1250	46	41	50	50	57	55	48	42
-500	44	33	41	45	51	52	39	23
500	34	29	29	29	30	27	24	22
1250	45	43	38	35	37	39	35	33

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 = 7.9 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	3.96	0.06	0.14	0.25	0.39	0.56	0.99
60	5.09	0.08	0.18	0.32	0.50	0.71	1.27
84	6.39	0.10	0.22	0.40	0.62	0.90	1.59
120	6.94	0.11	0.24	0.43	0.68	0.97	1.73

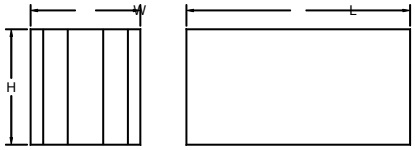
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-MV-L22

Rectangular, Straight,
Medium-Velocity Sounpak® Silencer
with Vapor Barrier

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



5 ft Quick Rating = P08-L22-M56

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	1	7	5	9	15	17	13	11
	0	2	6	5	7	15	14	16	12
	2000	3	4	6	7	13	13	16	10
60	-2000	5	11	9	15	22	25	19	16
	0	6	10	8	12	24	20	23	16
	2000	3	8	9	14	22	20	24	15
84	-2000	6	14	14	23	32	37	27	26
	0	6	13	14	20	30	35	32	26
	2000	3	11	15	22	32	28	31	19
120	-2000	8	14	17	34	44	46	27	26
	0	7	16	20	31	49	39	33	26
	2000	4	13	22	33	48	39	37	24

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	54	53	57	54	60	62	54	47
- 1000	37	41	45	39	43	42	38	27
1000	39	36	35	37	33	36	30	32
2000	53	52	50	48	46	55	48	45

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 = 6.2 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
36	1.05	0.02	0.07	0.15	0.26	0.41	0.59
60	1.25	0.02	0.08	0.18	0.31	0.49	0.70
84	1.87	0.03	0.12	0.26	0.47	0.73	1.05
120	1.98	0.03	0.12	0.28	0.49	0.77	1.11

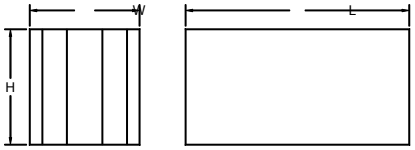
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-MV-L25

Rectangular, Straight,
Medium-Velocity Sounpak® Silencer
with Vapor Barrier

Availability
L: 3 feet and greater (sections if L>12ft)
W: 8.5-9.5, 17-19, 34-38 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P07-L25-M60

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	8	4	7	12	16	16	11	9
	0	6	4	6	11	15	13	13	9
	2000	4	3	8	13	16	13	12	8
60	-2000	6	6	12	20	22	19	11	9
	0	6	7	13	18	23	17	17	15
	2000	7	6	12	19	24	18	18	15
84	-2000	12	8	16	29	30	22	11	9
	0	8	8	17	26	33	20	18	17
	2000	9	7	19	28	35	22	20	18
120	-2000	18	14	22	41	41	30	17	14
	0	14	12	23	34	41	26	24	23
	2000	13	10	25	39	43	27	28	23

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	58	52	58	56	59	60	55	47
-1000	39	38	47	43	47	44	36	27
1000	32	32	33	33	34	38	27	25
2000	61	49	46	45	45	55	50	44

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 = 6.4 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
36	1.08	0.02	0.07	0.15	0.27	0.42	0.61
60	1.10	0.02	0.07	0.15	0.27	0.43	0.62
84	1.30	0.02	0.08	0.18	0.32	0.51	0.73
120	1.68	0.03	0.10	0.24	0.42	0.65	0.94

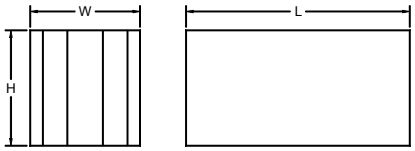
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSV-MV-L27

Rectangular, Straight,
Medium-Velocity Sounpak® Silencer
with Vapor Barrier

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-L27-M37

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	8	8	9	10	9	8
	0	5	7	8	8	9	9	9	8
	2000	4	6	7	7	7	8	8	7
60	- 2000	7	11	12	13	14	13	12	11
	0	7	10	11	12	14	13	12	11
	2000	6	9	10	11	12	11	10	9
84	- 2000	11	14	16	17	19	17	14	12
	0	11	14	15	16	19	17	14	13
	2000	9	12	13	15	17	14	12	11
120	-2000	15	19	22	23	24	21	16	14
	0	16	18	20	22	25	21	17	15
	2000	13	17	18	20	22	18	14	13

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	51	49	50	51	53	54	46	37
-1000	37	41	45	39	43	42	38	27
1000	39	36	35	37	33	36	30	32
2000	53	48	47	45	47	51	44	35

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 = 5.8 lb/ft^3

Table 4: Pressure Loss

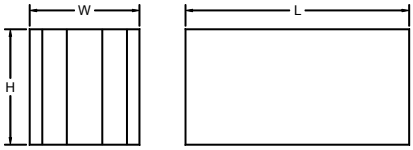
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
36	0.92	0.01	0.06	0.13	0.23	0.36	0.52
60	1.43	0.02	0.09	0.20	0.36	0.56	0.80
84	2.17	0.03	0.14	0.30	0.54	0.85	1.22
120	3.28	0.05	0.20	0.46	0.82	1.28	1.84

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

RSN-PV-L37

Rectangular, Straight, No-Fill, 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 = P70-L37-M54

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	6	10	19	28	15	11	12	9
	0	5	9	14	21	12	11	12	12
	750	6	9	18	25	15	11	10	11
60	-750	9	13	22	29	17	12	12	9
	0	6	10	14	21	13	12	12	12
	750	7	11	19	26	16	12	11	11
84	-750	13	18	27	34	20	14	15	10
	0	9	14	17	25	16	15	14	14
	750	8	16	24	31	19	15	14	13
120	-750	13	18	35	42	25	17	18	12
	0	9	14	21	31	20	18	18	17
	750	8	16	32	38	23	19	17	16

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	(51)	(41)	33	40	47	53	49	43
-250	(45)	(35)	31	29	29	30	32	25
250	(45)	(35)	31	29	29	30	32	25
750	49	42	41	45	48	53	49	40

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 = 6.4 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	9.53	0.04	0.15	0.33	0.59	0.93	1.34
60	11.18	0.04	0.17	0.39	0.70	1.09	1.57
84	14.24	0.06	0.22	0.50	0.89	1.39	2.00
120	17.39	0.07	0.27	0.61	1.08	1.69	2.44

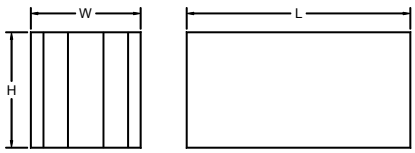
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 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.

RSN-PV-L38

Rectangular, Straight, No-Fill, 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 = P70-L38-M53

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	6	10	20	22	16	13	13	10
	0	5	8	14	12	10	9	9	10
	750	6	9	19	20	15	13	11	12
60	-750	9	13	23	23	18	15	14	10
	0	5	9	14	13	11	10	9	10
	750	7	11	20	21	17	15	13	12
84	-750	13	18	29	27	21	18	17	11
	0	8	12	17	15	14	12	11	11
	750	9	16	25	24	20	18	16	14
120	-750	16	24	36	33	26	21	21	13
	0	11	18	21	18	17	15	14	14
	750	12	25	34	30	24	23	20	17

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	(51)	(41)	33	40	47	53	49	43
-250	(45)	(35)	31	29	29	30	32	25
250	(45)	(35)	31	29	29	30	32	25
750	49	42	41	45	48	53	49	40

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 = 6.4 lb/ft^3

Table 4: Pressure Loss

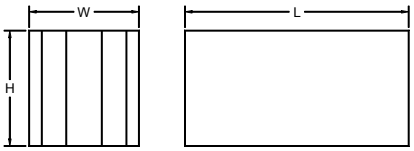
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		250	500	750	1000	1250	1500
36	9.53	0.04	0.15	0.33	0.59	0.93	1.34
60	11.18	0.04	0.17	0.39	0.70	1.09	1.57
84	14.24	0.06	0.22	0.50	0.89	1.39	2.00
120	17.39	0.07	0.27	0.61	1.08	1.69	2.44

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 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.

RSN-LV-L23

Rectangular, Straight, No-Fill,
Low-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 = P22-L23-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	-1250	5	7	13	21	9	8	4	2
	0	5	6	10	18	9	7	7	8
	1250	4	5	12	19	9	5	4	5
60	-1250	6	8	14	23	10	8	5	2
	0	5	6	10	18	10	8	8	8
	1250	5	6	13	20	9	6	5	6
84	-1250	9	12	18	27	12	10	6	2
	0	7	9	12	21	13	10	9	9
	1250	6	9	16	23	11	7	6	7
120	-1250	12	16	23	33	15	12	7	3
	0	11	13	15	27	16	13	11	11
	1250	7	14	21	28	13	9	7	8

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
-1250	61	46	41	45	47	48	48	43
-500	59	39	36	45	39	27	25	25
500	58	39	32	40	38	27	26	27
1250	59	46	41	45	48	48	47	42

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 = 6.2 lb/ft^3

Table 4: Pressure Loss

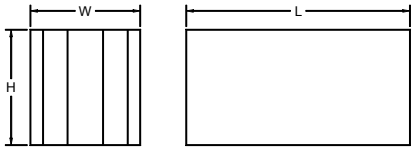
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	2.99	0.05	0.10	0.19	0.29	0.42	0.75
60	3.51	0.05	0.12	0.22	0.34	0.49	0.88
84	4.48	0.07	0.16	0.28	0.44	0.63	1.12
120	5.48	0.09	0.19	0.34	0.53	0.77	1.37

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 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.

RSN-LV-L27

Rectangular, Straight, No-Fill,
Low-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 = P22-L27-M42

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	-1250	3	7	11	18	15	8	5	4
	0	3	6	10	16	13	8	5	4
	1250	5	7	12	16	15	8	5	4
60	-1250	4	8	12	19	16	9	6	4
	0	4	7	10	16	15	9	6	4
	1250	6	9	13	17	17	9	5	5
84	-1250	6	12	15	22	19	11	7	4
	0	5	10	12	19	18	11	7	5
	1250	7	13	16	20	20	11	7	6
120	-1250	8	16	19	27	24	13	8	4
	0	8	14	15	24	23	14	8	6
	1250	9	19	21	24	24	15	9	7

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
-1250	61	46	41	45	47	48	48	43
-500	59	39	36	45	39	27	25	25
500	58	39	32	40	38	27	26	27
1250	59	46	41	45	48	48	47	42

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 = 5.1 lb/ft^3

Table 4: Pressure Loss

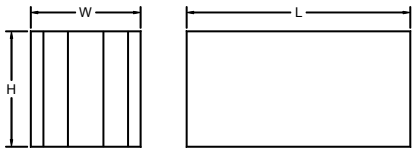
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	2.99	0.05	0.10	0.19	0.29	0.42	0.75
60	3.51	0.05	0.12	0.22	0.34	0.49	0.88
84	4.48	0.07	0.16	0.28	0.44	0.63	1.12
120	5.48	0.09	0.19	0.34	0.53	0.77	1.37

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 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.

RSN-LV-L29

Rectangular, Straight, No-Fill,
Low-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 = P22-L29-M45

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	-1250	4	7	12	19	15	9	6	4
	0	4	6	11	17	13	9	6	5
	1250	6	8	13	17	16	9	6	5
60	-1250	6	8	13	20	16	10	7	4
	0	4	7	12	17	15	10	7	5
	1250	7	10	14	18	18	10	6	6
84	-1250	8	12	16	24	19	12	8	5
	0	7	10	13	20	18	12	8	6
	1250	9	14	17	21	21	13	8	7
120	-1250	10	16	21	29	24	15	10	6
	0	13	14	16	25	23	15	10	7
	1250	12	21	23	26	26	16	10	8

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
-1250	61	46	41	45	47	48	48	43
-500	59	39	36	45	39	27	25	25
500	58	39	32	40	38	27	26	27
1250	59	46	41	45	48	48	47	42

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 = 5.1 lb/ft^3

Table 4: Pressure Loss

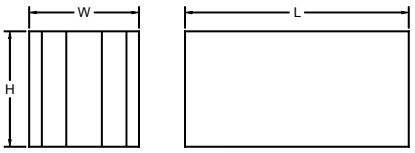
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36	2.99	0.05	0.10	0.19	0.29	0.42	0.75
60	3.51	0.05	0.12	0.22	0.34	0.49	0.88
84	4.48	0.07	0.16	0.28	0.44	0.63	1.12
120	5.48	0.09	0.19	0.34	0.53	0.77	1.37

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 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.

RSN-MV-L19

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-L19-M28

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	4	7	10	12	11	8	9	7
	0	4	6	9	10	10	8	9	8
	2000	3	4	7	9	9	6	6	6
60	-2000	6	8	11	12	12	9	9	7
	0	4	7	10	11	11	9	9	8
	2000	4	5	7	9	9	6	6	7
84	-2000	8	12	14	14	15	11	11	8
	0	6	10	11	12	14	11	11	9
	2000	6	8	9	9	11	8	8	8
120	-2000	10	16	17	18	18	13	14	9
	0	8	14	14	15	17	14	14	11
	2000	10	12	12	13	13	10	10	9

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 = 4.9 lb/ft^3

Table 4: Pressure Loss

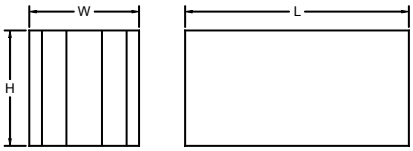
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1500	2000	2500
36	1.16	0.02	0.04	0.07	0.16	0.29	0.45
60	1.37	0.02	0.05	0.09	0.19	0.34	0.53
84	1.75	0.03	0.06	0.11	0.25	0.44	0.68
120	2.13	0.03	0.07	0.13	0.30	0.53	0.83

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 . 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.

RSN-MV-L20

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 = P12-L20-M36

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	6	7	11	14	14	14	10
	0	4	4	6	9	10	11	9	7
	2000	4	5	5	9	10	10	7	5
60	-2000	7	8	9	13	15	16	16	12
	0	5	6	8	12	12	14	11	8
	2000	6	6	7	10	12	12	8	6
84	-2000	8	11	11	16	18	19	20	14
	0	6	8	9	15	15	17	13	9
	2000	6	9	9	12	14	15	10	7
120	-2000	9	12	13	18	19	22	22	16
	0	7	10	10	17	17	19	15	11
	2000	7	11	10	13	16	18	11	8

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	53	62	55	51	54	58	53	37
-1000	(49)	(52)	(43)	42	39	42	42	35
1000	(52)	(46)	38	41	41	45	45	38
2000	53	51	48	50	57	62	58	41

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 = 7.2 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	1750	2000	3000
36	1.66	0.03	0.10	0.23	0.32	0.41	0.93
60	1.86	0.03	0.12	0.26	0.36	0.46	1.04
84	2.77	0.04	0.17	0.39	0.53	0.69	1.55
120	2.94	0.05	0.18	0.41	0.56	0.73	1.65

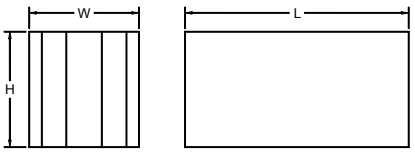
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 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.

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

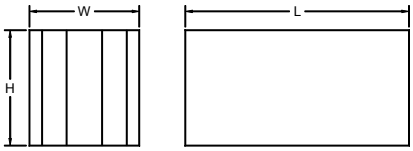
Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1500	2000	2500
36	1.16	0.02	0.04	0.07	0.16	0.29	0.45
60	1.37	0.02	0.05	0.09	0.19	0.34	0.53
84	1.75	0.03	0.06	0.11	0.25	0.44	0.68
120	2.13	0.03	0.07	0.13	0.30	0.53	0.83

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.

RSN-MV-L27

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 = P12-L27-M43

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	7	10	11	16	15	13	9	4
	0	6	6	6	9	10	11	8	2
	2000	7	8	9	14	13	13	8	6
60	-2000	10	13	14	18	16	15	10	5
	0	7	8	7	12	12	14	9	3
	2000	9	10	12	16	15	16	10	7
84	-2000	13	17	17	22	19	18	12	6
	0	10	11	8	15	15	17	11	4
	2000	12	14	15	19	18	20	12	8
120	-2000	13	19	20	24	20	20	13	7
	0	12	14	9	17	17	19	12	4
	2000	12	19	18	21	20	24	14	9

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	53	62	55	51	54	58	53	37
-1000	(49)	(52)	(43)	42	39	42	42	35
1000	(52)	(46)	38	41	41	45	45	38
2000	53	51	48	50	57	62	58	41

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 = 7.2 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	1750	2000	3000
36	1.66	0.03	0.10	0.23	0.32	0.41	0.93
60	1.86	0.03	0.12	0.26	0.36	0.46	1.04
84	2.77	0.04	0.17	0.39	0.53	0.69	1.55
120	2.94	0.05	0.18	0.41	0.56	0.73	1.65

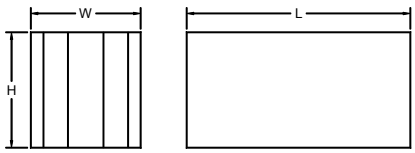
Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

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 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.

RSN-MV-L33

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 = P12-L33-M56

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	7	10	11	19	19	15	11	5
	0	8	7	9	16	14	14	11	6
	2000	7	9	10	17	15	15	9	6
60	-2000	11	13	15	22	20	17	12	6
	0	10	10	11	20	17	18	13	7
	2000	10	11	13	20	18	18	11	8
84	-2000	14	17	18	27	24	20	15	7
	0	14	14	13	24	21	22	15	8
	2000	13	16	16	24	21	23	14	9
120	-2000	15	19	21	30	26	23	16	8
	0	17	17	14	28	24	25	18	10
	2000	14	21	19	27	23	27	15	11

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	53	62	55	51	54	58	53	37
-1000	(49)	(52)	(43)	42	39	42	42	35
1000	(52)	(46)	38	41	41	45	45	38
2000	53	51	48	50	57	62	58	41

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 = 7.5 lb/ft^3

Table 4: Pressure Loss

Length (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	1750	2000	3000
36	1.66	0.03	0.10	0.23	0.32	0.41	0.93
60	1.86	0.03	0.12	0.26	0.36	0.46	1.04
84	2.77	0.04	0.17	0.39	0.53	0.69	1.55
120	2.94	0.05	0.18	0.41	0.56	0.73	1.65

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 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.

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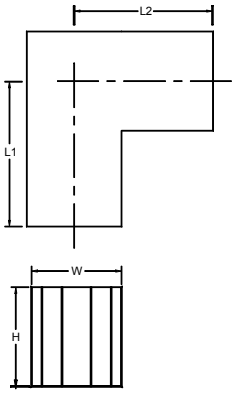

REF-LV-L30

Rectangular, Elbow, Fiber-Filled, Low-Velocity Sounpak® Silencer

Availability
L1 and L2: 2 feet and greater
W: 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)

Quick Rating = P17-L30-M81

See bottom of page for explanation.

Table 1: Insertion Loss

L1 x L2 (in)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
36 x 36	- 1500	6	11	17	27	32	32	18	10
	0	6	11	16	26	31	31	21	13
	1500	5	9	15	23	28	27	18	10

Test data based on a 24Wx24Hx36L1x36L2 unit utilizing ASTM E 477 test method. 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
- 1500	(54)	(47)	39	38	37	40	39	33
- 1000	(46)	(40)	30	(33)	40	37	32	36
- 500	(45)	(32)	(27)	21	22	23	29	37
500	(43)	32	(25)	(24)	21	22	28	35
1000	(48)	(37)	26	33	33	33	28	26
1500	(55)	57	43	50	54	62	63	57

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 = 4.3 lb/ft^3

Table 4: Pressure Loss

L1 x L2 (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36 x 36	2.80	0.04	0.10	0.17	0.27	0.39	0.70

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

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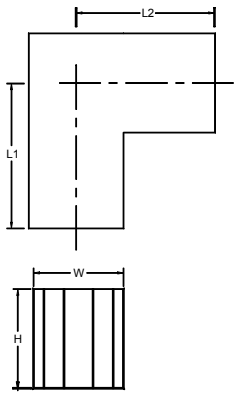
REF-LV-L35

Rectangular, Elbow, Fiber-Filled, Low-Velocity Sounpak® Silencer



Availability
L1 and L2: 2 feet and greater
W: 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)

Quick Rating = P24-L35-M108

See bottom of page for explanation.

Table 1: Insertion Loss

L1 x L2 (in)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
36 x 60 60 x 36	- 1250	7	14	20	35	40	35	21	10
	0	7	13	18	36	42	36	26	16
	1250	6	12	17	33	39	33	22	12

Test data based on a 24Wx24Hx36L1x60L2 unit utilizing ASTM E 477 test method. 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
- 1500	(54)	(47)	39	38	37	40	39	33
- 1000	(46)	(40)	30	(33)	40	37	32	36
- 500	(45)	(32)	(27)	21	22	23	29	37
500	(43)	32	(25)	(24)	21	22	28	35
1000	(48)	(37)	26	33	33	33	28	26
1500	(55)	57	43	50	54	62	63	57

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 = 4.3 lb/ft^3

Table 4: Pressure Loss

L1 x L2 (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36 x 60 60 x 36	3.78	0.06	0.13	0.24	0.37	0.53	0.94

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

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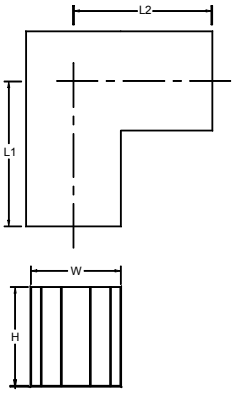

REF-LV-L37

Rectangular, Elbow, Fiber-Filled, Low-Velocity Sounpak® Silencer

Availability
L1 and L2: 2 feet and greater
W: 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)

Quick Rating = P15-L37-M104

See bottom of page for explanation.

Table 1: Insertion Loss

L1 x L2 (in)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
36 x 36	- 1500	5	12	26	33	33	31	21	13
	0	5	10	24	32	40	38	24	15
	1500	5	9	22	29	37	35	22	15

Test data based on a 24Wx24Hx36L1x36L2 unit utilizing ASTM E 477 test method. 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
- 1500	58	55	44	45	48	55	54	47
- 1000	46	40	34	43	44	41	35	36
1000	(51)	40	34	40	43	43	38	34
1500	62	56	45	45	49	57	55	48

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 = 5.8 lb/ft^3

Table 4: Pressure Loss

L1 x L2 (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
36 x 36	2.35	0.04	0.15	0.33	0.59	0.92	1.32

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

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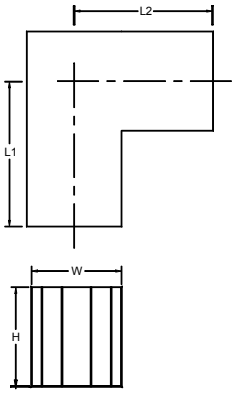

REF-LV-L42

Rectangular, Elbow, Fiber-Filled, Low-Velocity Sounpak® Silencer

Availability
L1 and L2: 2 feet and greater
W: 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)

Quick Rating = P34-L42-M130

See bottom of page for explanation.

Table 1: Insertion Loss

L1 x L2 (in)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
36 x 24	- 1000	6	17	24	40	45	46	25	23
	0	7	15	23	44	47	(50)	45	32
	1000	7	14	21	42	43	45	39	23

Insertion loss data is derived from NVLAP® accredited laboratories, independent and internal, as well as computerized airflow and acoustical analysis. Actual performance under controlled test conditions will fall within accepted interlaboratory tolerances as given by ASTM. 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
- 1000	(68)	(49)	29	41	42	33	24	39
- 500	(67)	(37)	26	26	26	21	22	40
500	(58)	(37)	29	20	27	22	29	27
1000	(65)	(44)	30	32	43	35	29	21

Generated noise data is derived from NVLAP® accredited laboratories, independent and internal, as well as computerized airflow and acoustical analysis. Actual performance under controlled test conditions will fall within accepted interlaboratory tolerances as given by ASTM. 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 = 4.5 lb/ft^3

Table 4: Pressure Loss

L1 x L2 (in)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
36 x 24	5.50	0.09	0.19	0.34	0.54	0.77	1.37

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 at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

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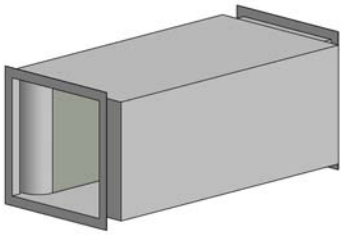
Availability
L: 3 ft and greater (sections if L>12ft)
W: 11.5-12.5, 23-25, 35-38, 46-50
H: any length (72-inch practical limit)



RWF-HV-L28

Rectangular, Straight, Fiber-Filled
Wide Body, High-Velocity
Sounpak® Silencer

5 ft Quick Rating = P03-L28-M39

See bottom of page for explanation

Table 1: Insertion Loss

Length (inches)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
60	-4000	(4)	10	17	21	12	5	3	3
	-2000	5	9	16	20	12	4	2	1
	0	4	9	16	19	13	6	3	1
	2000	4	8	15	18	14	7	5	3
	4000	(3)	8	14	18	15	8	6	4
120	-4000	(5)	15	(25)	(35)	20	8	5	4
	-2000	(9)	15	26	38	21	7	2	3
	0	(9)	15	25	36	22	9	5	4
	2000	(7)	13	24	36	23	10	7	5
	4000	(4)	13	(22)	(33)	25	11	8	6

Note that ASTM inter-laboratory testing has shown insertion loss may vary as much as 6 dB in the 63 hz 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
-4000	75	70	66	66	67	70	71	66
-2000	(58)	51	49	50	54	57	50	(41)
2000	63	51	47	46	50	49	44	(35)
4000	77	70	67	65	64	67	67	64

Note that ASTM inter-laboratory testing has shown that generated noise may vary as much as 6 dB in the 63 hz 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 (square feet)							
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 = length x height +5.8 lb/ft^3

Table 4: Pressure Loss

Length (inches)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	3000	4000
60	0.51	0.02	0.03	0.06	0.11	0.27	0.48
120	0.40	0.01	0.02	0.06	0.11	0.24	0.46

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 in wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

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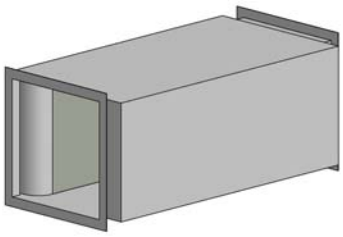
Availability
L: 3 ft and greater (sections if L>12ft)
W: 11.5-12.5, 23-25, 35-38, 46-50
H: any length (72 inch practical limit)



RWF-MV-L34

Rectangular, Straight, Fiber-Filled
Wide Body, Medium-Velocity
Sounpak® Silencer

5 ft Quick Rating = P09-L34-M69

See bottom of page for explanation

Table 1: Insertion Loss

Length (inches)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
60	-2000	(8)	14	17	28	24	15	11	7
	0	(6)	13	17	27	28	14	10	8
	2000	(6)	11	15	25	28	15	10	8
120	-2000	(13)	19	(35)	(44)	37	16	8	7
	0	(15)	19	34	43	37	17	10	4
	2000	(10)	17	32	41	39	19	12	8

Note that ASTM inter-laboratory testing has shown insertion loss may vary as much as 6 dB in the 63 hz 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	(59)	56	55	56	58	62	56	49
-1000	(53)	(42)	41	45	45	37	(29)	(30)
1000	(57)	(42)	(35)	(35)	36	(31)	(27)	(30)
2000	(59)	51	48	47	51	55	52	46

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 (square feet)							
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 = length x height +5.8 lb/ft^3

Table 4: Pressure Loss

Length (inches)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
60	1.17	0.02	0.07	0.16	0.29	0.46	0.66
120	1.23	0.02	0.07	0.19	0.37		

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 in wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

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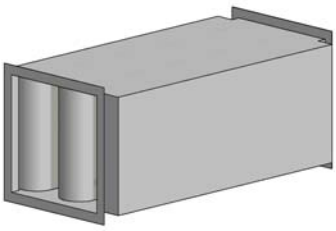
Availability
L: 3 ft and greater (sections if L>12ft)
W: 11.5-12.5, 23-25, 35-38
H: any length (72 inch practical limit)



RWF-MV-L36

Rectangular, Straight, Fiber-Filled, Wide Body, Medium-Velocity Sounpak® Silencer

5 ft Quick Rating = P12-L36-M114

See bottom of page for explanation

Table 1: Insertion Loss

Length (inches)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
60	-2000	(6)	16	24	38	(43)	(33)	21	12
	0	(4)	13	21	35	44	38	20	12
	2000	(2)	11	19	31	(41)	(37)	21	14
120	-2000	(12)	(25)	(36)	(47)	(48)	(41)	(28)	13
	0	(15)	(22)	34	51	57	58	33	19
	2000	(10)	19	(31)	(49)	(52)	(46)	(37)	25

Note that ASTM inter-laboratory testing has shown insertion loss may vary as much as 6 dB in the 63 hz 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	(60)	54	54	57	59	63	59	52
- 1000	(57)	(44)	42	45	46	41	(31)	(30)
1000	(58)	(42)	(35)	(36)	36	31	(28)	(30)
2000	62	54	50	49	52	56	54	48

Note that ASTM inter-laboratory testing has shown that generated noise may vary as much as 6 dB in the 63 hz 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 (square feet)							
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 = (height x length) + 6.2 lb/ft^3

Table 4: Pressure Loss

Length (inches)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	1000	1500	2000	2500	3000
60	1.94	0.03	0.12	0.27	0.48	0.76	1.09
120	2.43	0.04	0.15	0.36	0.67		

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 in wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

McGill AirSilence LLC

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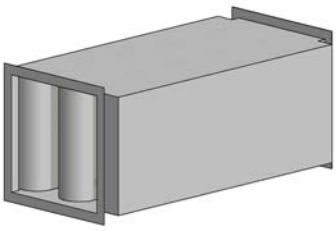
Availability
L: 3 ft and greater (sections if L>12ft)
W: 11.5-12.5, 23-25, 35-38, 46-50
H: any length (72-inch practical limit)



RWF-LV-L43

Rectangular, Straight, Fiber-Filled
Wide Body, Low-Velocity
Sounpak® Silencer

5 ft Quick Rating = P36-L43-M137

See bottom of page for explanation

Table 1: Insertion Loss

Length (inches)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
60	-1000	9	15	23	40	(47)	(46)	25	13
	0	8	14	23	39	51	47	27	13
	1000	7	14	22	38	(51)	(48)	30	15
120	-1000	(16)	(32)	40	(52)	(52)	(53)	(42)	21
	0	(16)	(29)	38	52	52	57	48	27
	1000	(11)	(27)	36	54	56	55	(52)	28

Note that ASTM inter-laboratory testing has shown insertion loss may vary as much as 6 dB in the 63 hz 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
-1000	(55)	(45)	46	49	55	51	43	(34)
-500	(54)	(39)	(36)	39	37	(30)	(26)	(31)
+500	(57)	(42)	(33)	(32)	(28)	(25)	(26)	(31)
+1000	(58)	(44)	(37)	39	45	45	40	(33)

Note that ASTM inter-laboratory testing has shown that generated noise may vary as much as 6 dB in the 63 hz 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 (square feet)							
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.

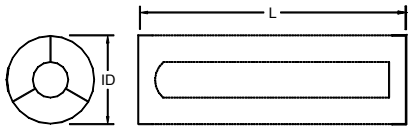
Weight = (height *length)+7.9 lb/ft^3

Table 4: Pressure Loss

Length (inches)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
		Face Velocity (fpm)					
		500	750	1000	1250	1500	2000
60	6.11	0.10	0.21	0.38	0.60	0.86	1.59
120	6.87	0.11	0.25	0.40	0.73	1.06	1.84

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 in wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.



CSF-MV-L25

Circular, Straight, Fiber-Filled, Medium-Velocity Sounpak® Silencer

Availability
Diameters from 12 to 60 inches, in 2-inch increments.
Length equal to approximately 3.25 times the diameter.
Custom lengths also available.

Table 1: Insertion Loss

ID (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
			63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	40	- 2500	5	2	12	20	28	14	13	10
		0	4	3	10	20	26	15	13	12
		2500	2	2	9	17	22	14	10	11
24	78	- 2500	6	8	18	27	28	14	10	13
		0	5	8	16	23	26	14	12	11
		2500	3	4	14	22	25	14	10	11
36	118	- 2500	3	6	14	22	24	15	10	11
		0	3	6	14	22	24	15	10	11
		2500	4	6	14	21	26	15	10	11
48	156	- 2500	8	11	19	27	26	9	11	11
		0	7	10	17	27	26	9	9	10
		2500	5	8	16	22	25	10	9	9
60	196	- 2500	8	13	22	28	24	7	8	11
		0	8	8	20	30	25	5	10	9
		2500	7	12	22	30	24	6	11	10

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

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
24	-2500	67	58	54	53	56	53	46	38
	- 1500	63	47	48	44	45	37	25	23
	1500	58	50	46	43	42	36	27	20
	2500	66	57	52	52	55	53	48	41

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)						
12	18	24	34	48	68	96
-6	-3	0	+3	+6	+9	+12

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

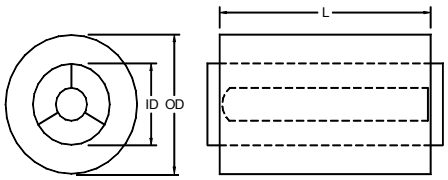
Table 4: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			500	1000	1500	2000	2500	3000
12	30	1.11	0.02	0.07	0.16	0.28	0.43	0.62
12 T	35	0.77	0.01	0.05	0.11	0.19	0.30	0.43
24	130	1.11	0.02	0.07	0.16	0.28	0.43	0.62
24 T	155	0.77	0.01	0.05	0.11	0.19	0.30	0.43
36	320	1.11	0.02	0.07	0.16	0.28	0.43	0.62
36 T	370	0.77	0.01	0.05	0.11	0.19	0.30	0.43
48	705	1.11	0.02	0.07	0.16	0.28	0.43	0.62
48 T	815	0.77	0.01	0.05	0.11	0.19	0.30	0.43
60	1265	1.11	0.02	0.07	0.16	0.28	0.43	0.62
60 T	1470	0.77	0.01	0.05	0.11	0.19	0.30	0.43

Notes: T denotes silencer with tail cone. Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

CSF-MV-L45

Circular, Straight, Fiber-Filled, Medium-Velocity Sounpak® Silencer



Availability
Diameters from 12 to 60 inches, in 2-inch increments.
Custom lengths available.

Table 1: Insertion Loss

ID (in)	OD (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	20	32	-2500	5	10	26	31	32	35	35	28
			0	4	8	23	35	33	36	36	30
			2500	4	5	17	35	37	38	35	27
24	32	48	-2500	7	9	26	33	37	38	25	17
			0	6	10	21	34	37	39	28	18
			2500	4	9	21	34	39	39	26	22
36	44	72	-2500	9	15	27	36	33	31	22	16
			0	10	13	25	39	37	32	26	18
			2500	10	11	22	41	39	33	25	19
48	56	96	-2500	10	17	27	35	33	24	15	16
			0	10	14	25	39	34	24	21	18
			2500	10	12	22	39	38	27	23	18
60	68	120	-2500	11	19	31	36	29	20	13	15
			0	11	17	29	40	31	21	18	16
			2500	11	13	26	41	33	24	21	17

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. Length equal to 2 times the diameter or 32 inches, whichever is longer.

Table 2: Airflow Generated Sound Power

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
24	-2500	72	64	63	66	62	59	55	54
	-1000	66	54	52	48	50	37	31	31
	1000	62	53	47	48	50	44	38	31
	2500	73	67	60	61	63	63	61	55

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)						
12	18	24	34	48	68	96
-6	-3	0	+3	+6	+9	+12

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

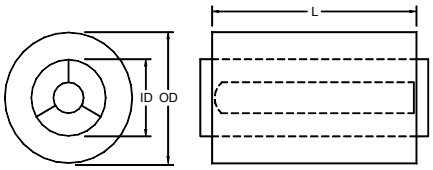
Table 4: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			500	1000	1500	2000	2500	3000
12	65	0.98	0.02	0.06	0.14	0.24	0.38	0.55
12 T	70	0.64	0.01	0.04	0.09	0.16	0.25	0.36
24	170	0.98	0.02	0.06	0.14	0.24	0.38	0.55
24 T	195	0.64	0.01	0.04	0.09	0.16	0.25	0.36
36	370	0.98	0.02	0.06	0.14	0.24	0.38	0.55
36 T	425	0.64	0.01	0.04	0.09	0.16	0.25	0.36
48	755	0.98	0.02	0.06	0.14	0.24	0.38	0.55
48 T	870	0.64	0.01	0.04	0.09	0.16	0.25	0.36
60	1505	0.98	0.02	0.06	0.14	0.24	0.38	0.55
60 T	1710	0.64	0.01	0.04	0.09	0.16	0.25	0.36

Notes: T denotes silencer with tail cone. Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

CSF-MV-L55

Circular, Straight, Fiber-Filled, Medium-Velocity Sounpak® Silencer



Availability
Diameters from 12 to 60 inches, in 2-inch increments. Standard lengths shown in Table 1. Custom lengths also available.

Table 1: Insertion Loss

ID. (in)	OD (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	24	36	- 2500	14	19	32	39	39	38	29	22
			0	13	16	28	36	48	46	27	23
			2000	11	14	26	31	37	37	29	23
24	40	48	- 2500	11	19	26	33	39	37	20	14
			0	9	17	23	32	41	39	24	19
			2500	6	15	20	29	39	38	27	24
36	52	72	- 2500	13	22	29	34	42	31	21	17
			0	12	20	27	33	43	31	19	17
			2500	10	16	24	29	39	32	22	17

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. Length equal to 2 times the diameter or 36 inches, whichever is longer.

Table 2: Airflow Generated Sound Power

ID (inches)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
24	-2500	72	64	63	66	62	59	55	54
	-1000	66	54	52	48	50	37	31	31
	1000	62	53	47	48	50	44	38	31
	2500	73	67	60	61	63	63	61	55

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)						
12	18	24	34	48	68	96
-6	-3	0	+3	+6	+9	+12

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

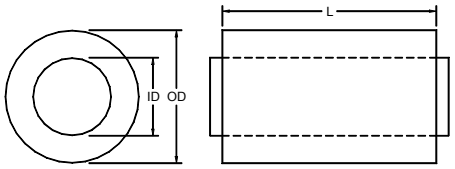
Table 4: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			250	500	1000	1500	2000	2500
12	85	1.21	0.00	0.02	0.08	0.17	0.30	0.47
12 T	90	0.94	0.00	0.01	0.06	0.13	0.23	0.37
24	280	1.21	0.00	0.02	0.08	0.17	0.30	0.47
24 T	290	0.94	0.00	0.01	0.06	0.13	0.23	0.37
36	575	1.21	0.00	0.02	0.08	0.17	0.30	0.47
36 T	630	0.94	0.00	0.01	0.06	0.13	0.23	0.37

Notes: T denotes silencer with tail cone. Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

CSF-HV-L15

Circular, Straight, Fiber-Filled, High-Velocity Sounpak® Silencer



Availability
Diameters from 3 to 26 inches, in 1-inch increments; 26 to 60 inches, in 2-inch increments. Custom lengths available.

Table 1: Insertion Loss

ID (in)	OD (in)	Length, L (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
6	12	21	- 5000	1	2	2	3	3	2	2	1
			0	2	2	3	4	4	4	3	3
			5000	1	2	2	3	2	2	1	1
12	18	42	- 5000	0	2	4	5	3	3	2	2
			0	1	4	5	7	7	8	5	3
			5000	0	2	4	2	3	3	2	2
18	24	63	- 5000	1	3	7	7	8	10	8	8
			0	1	4	8	11	11	8	6	6
			5000	1	3	7	7	8	10	8	8
24	30	84	- 5000	1	4	7	14	8	6	4	3
			0	3	5	8	16	12	7	6	5
			5000	1	4	7	14	8	6	4	3
36	42	126	- 5000	0	3	7	14	10	6	2	2
			0	2	5	10	19	7	7	7	8
			5000	0	3	7	14	10	6	2	2
48	54	168	- 5000	0	1	5	2	5	5	0	0
			0	2	4	12	18	5	5	5	5
			5000	0	1	5	2	5	5	0	0

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. Length equal to 3.5 times the diameter.

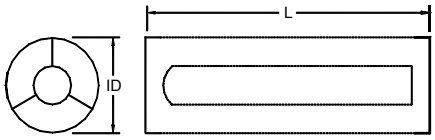
Airflow Generated Sound Power

This silencer does not have internal components that would cause generated noise. The results of laboratory testing indicate indiscernible differences between the noise generated by the silencer and the noise generated by the connecting duct.

Table 2: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)				
			Face Velocity (fpm)				
			1000	2000	3000	4000	5000
6	10	0.034	0.00	0.01	0.02	0.03	0.05
12	30	0.024	0.00	0.01	0.01	0.02	0.04
18	65	0.020	0.00	0.00	0.01	0.02	0.03
24	130	0.017	0.00	0.00	0.01	0.02	0.03
36	295	0.014	0.00	0.00	0.01	0.01	0.02
48	660	0.014	0.00	0.00	0.01	0.01	0.02

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



CSF-HV-L20

Circular, Straight, Fiber-Filled, High-Velocity Sounpak® Silencer

Availability
Diameters from 12 to 60 inches, in 2-inch increments.
Custom lengths available.

Table 1: Insertion Loss

ID (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
			63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	40	- 3000	1	2	7	13	15	9	9	8
		0	1	2	9	15	15	11	8	9
		3000	1	2	7	13	13	11	8	8
24	78	- 3000	4	4	11	18	15	9	9	9
		0	4	5	11	20	16	9	9	7
		3000	3	4	9	19	15	9	9	9
36	118	- 3000	4	4	11	20	14	10	8	14
		0	3	5	10	17	15	9	9	9
		3000	3	4	11	18	14	9	8	9
48	156	- 3000	5	5	12	20	14	8	7	6
		0	5	5	12	21	12	6	8	5
		3000	4	5	11	18	14	6	8	6
60	196	- 3000	6	6	14	18	12	5	6	5
		0	7	6	15	20	12	6	7	5
		3000	4	5	15	18	12	7	8	6

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. Length equal to approximately 3.25 times the diameter.

Table 2: Airflow Generated Sound Power

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
24	-3000	71	67	65	60	59	58	55	48
	- 1500	63	53	47	41	42	35	28	23
	+1500	61	53	43	43	44	39	33	23
	+3000	69	64	61	57	58	60	58	50

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)						
12	18	24	34	48	68	96
-6	-3	0	+3	+6	+9	+12

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

Table 4: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			1000	1500	2000	2500	3000	4000
12	30	0.55	0.03	0.08	0.14	0.21	0.31	0.55
12 T	35	0.42	0.03	0.06	0.10	0.16	0.24	0.42
24	115	0.55	0.03	0.08	0.14	0.21	0.31	0.55
24 T	130	0.42	0.03	0.06	0.10	0.16	0.24	0.42
36	275	0.55	0.03	0.08	0.14	0.21	0.31	0.55
36 T	310	0.42	0.03	0.06	0.10	0.16	0.24	0.42
48	585	0.55	0.03	0.08	0.14	0.21	0.31	0.55
48 T	650	0.42	0.03	0.06	0.10	0.16	0.24	0.42
60	1020	0.55	0.03	0.08	0.14	0.21	0.31	0.55
60 T	1130	0.42	0.03	0.06	0.10	0.16	0.24	0.42

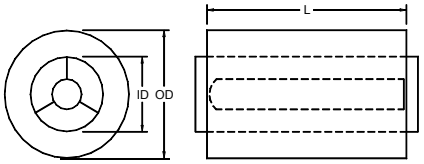
Notes: T denotes silencer with tail cone. Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

McGill AirSilence LLC

An enterprise of United McGill Corporation - Founded in 1951

CSF-HV-L30

Circular, Straight, Fiber-Filled, High-Velocity Sounpak® Silencer



Availability
Diameters from 12 to 60 inches, in 2-inch increments.
Custom lengths available.

Table 1: Insertion Loss

ID (in)	OD (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	20	32	-4000	8	6	18	35	36	37	21	16
			0	3	4	18	31	32	35	22	14
			4000	4	6	14	22	30	34	19	12
24	32	48	-4000	6	6	17	31	34	27	15	12
			0	5	7	16	28	35	26	18	13
			4000	8	6	18	31	34	26	15	13
36	44	72	-4000	5	5	16	28	33	26	18	13
			0	5	6	14	22	31	23	17	14
			4000	5	6	15	20	29	25	17	14
48	56	96	-4000	12	11	19	35	31	22	15	15
			0	7	9	19	33	27	22	16	14
			4000	8	10	16	27	25	23	15	12
60	68	120	-4000	12	14	20	35	31	20	12	12
			0	13	13	22	37	31	21	10	14
			4000	9	13	21	32	30	21	12	13

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. Length equal to 2 times the diameter or 32 inches, whichever is longer.

Table 2: Airflow Generated Sound Power

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
24	-4000	69	64	65	65	63	61	55	55
	-2000	67	55	53	48	49	38	31	32
	2000	63	55	47	48	51	46	38	31
	4000	71	64	61	61	64	64	62	55

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)						
12	18	24	34	48	68	96
-6	-3	0	+3	+6	+9	+12

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

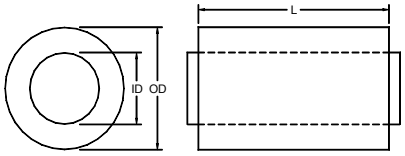
Table 4: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			1000	2000	3000	4000	5000	6000
12	60	0.25	0.02	0.06	0.14	0.25	0.39	0.56
12 T	65	0.21	0.01	0.05	0.12	0.21	0.33	0.47
24	155	0.25	0.02	0.06	0.14	0.25	0.39	0.56
24 T	165	0.21	0.01	0.05	0.12	0.21	0.33	0.47
36	330	0.25	0.02	0.06	0.14	0.25	0.39	0.56
36 T	350	0.21	0.01	0.05	0.12	0.21	0.33	0.47
48	630	0.25	0.02	0.06	0.14	0.25	0.39	0.56
48 T	675	0.21	0.01	0.05	0.12	0.21	0.33	0.47
60	1220	0.25	0.02	0.06	0.14	0.25	0.39	0.56
60 T	1285	0.21	0.01	0.05	0.12	0.21	0.33	0.47

Notes: T denotes silencer with tail cone. Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

CSF-HV-L39

Circular, Straight, Fiber-Filled, High-Velocity Sounpak® Silencer



Availability
Diameters from 3 to 26 inches, in 1-inch increments; 26 to 60 inches, in 2-inch increments. Custom lengths available.

Table 1: Insertion Loss

ID (in)	OD (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
6	18	12	- 5000	9	10	15	20	16	13	3	2
			0	9	8	16	19	16	15	6	3
			5000	6	7	15	18	15	14	6	3
12	24	24	- 5000	7	9	14	16	19	10	3	2
			0	7	8	13	15	19	11	6	4
			5000	6	7	12	14	18	11	6	3
18	30	36	- 5000	7	11	18	19	17	10	4	4
			0	7	10	18	18	17	12	8	4
			5000	6	9	16	16	17	12	6	4
24	36	48	- 5000	14	11	18	23	16	11	4	4
			0	12	10	18	22	15	12	8	5
			5000	12	10	15	19	15	12	7	4
36	52	72	- 5000	16	18	22	27	9	8	3	3
			0	14	16	23	25	9	9	7	4
			5000	14	16	19	22	9	9	6	4
48	64	96	- 5000	16	19	22	22	7	6	2	2
			0	14	17	22	21	7	7	4	3
			5000	14	17	18	18	7	7	4	2

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. Length equal to 2 times the diameter.

Airflow Generated Sound Power

This silencer does not have internal components that would cause generated noise. The results of laboratory testing indicate indiscernible differences between the noise generated by the silencer and the noise generated by the connecting duct.

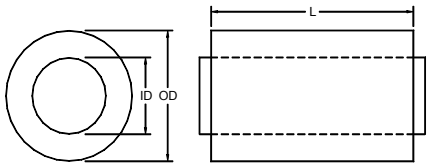
Table 2: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)				
			Face Velocity (fpm)				
			1000	2000	3000	4000	5000
3	20	0.039	0.00	0.01	0.02	0.04	0.06
6	30	0.024	0.00	0.01	0.01	0.02	0.04
12	75	0.017	0.00	0.00	0.01	0.02	0.03
18	150	0.014	0.00	0.00	0.01	0.01	0.02
24	235	0.012	0.00	0.00	0.01	0.01	0.02
36	800	0.010	0.00	0.00	0.01	0.01	0.02
48	1355	0.010	0.00	0.00	0.01	0.01	0.02
60	2015	0.010	0.00	0.00	0.01	0.01	0.02

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

CSF-HV-L44

Circular, Straight, Fiber-Filled, High-Velocity Sounpak® Silencer



Availability
Diameters from 3 to 26 inches, in 1-inch increments; 26 to 60 inches, in 2-inch increments. Custom lengths available.

Table 1: Insertion Loss

ID (in)	OD (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
6	18	18	- 5000	9	10	18	34	24	20	11	9
			0	9	8	19	32	24	22	11	9
			5000	6	7	17	29	23	21	12	9
12	24	36	- 5000	7	9	17	27	28	16	10	8
			0	7	8	16	25	28	16	11	12
			5000	6	7	14	23	27	16	13	10
18	30	54	- 5000	7	11	22	32	25	16	13	14
			0	7	10	22	30	25	17	14	13
			5000	6	9	19	27	25	18	14	13
24	36	72	- 5000	14	11	22	39	23	18	14	14
			0	12	10	22	37	22	18	15	14
			5000	12	10	18	32	23	18	16	14
36	52	126	- 5000	16	18	27	45	14	13	11	13
			0	14	16	28	42	13	13	12	13
			5000	14	16	22	37	14	13	13	13
48	64	168	- 5000	16	19	26	36	10	10	7	8
			0	14	17	27	34	10	10	8	8
			5000	14	17	21	30	10	10	9	8

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. For diameters from 3 to 30 in., length equal to 3 times the diameter or 18 inches, whichever is longer. For diameters greater than 30 inches, length equal to 3.5 times the diameter.

Airflow Generated Sound Power

This silencer does not have internal components that would cause generated noise. The results of laboratory testing indicate indiscernible differences between the noise generated by the silencer and the noise generated by the connecting duct.

Table 2: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)				
			Face Velocity (fpm)				
			1000	2000	3000	4000	5000
3	20	0.039	0.00	0.01	0.02	0.04	0.06
6	30	0.024	0.00	0.01	0.01	0.02	0.04
12	75	0.017	0.00	0.00	0.01	0.02	0.03
18	150	0.014	0.00	0.00	0.01	0.01	0.02
24	235	0.012	0.00	0.00	0.01	0.01	0.02
36	800	0.010	0.00	0.00	0.01	0.01	0.02
48	1355	0.010	0.00	0.00	0.01	0.01	0.02
60	2015	0.010	0.00	0.00	0.01	0.01	0.02

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

McGill AirSilence LLC

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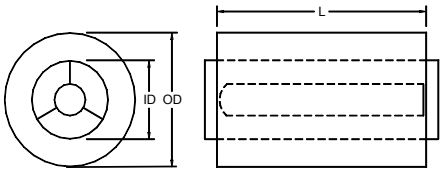


CSF-HV-L45

Circular, Straight, Fiber-Filled, High-Velocity Sounpak® Silencer

Availability
Diameters from 12 to 60 inches, in 2-inch increments. Standard lengths shown in Table 1. Custom lengths available.

Table 1: Insertion Loss

ID (in)	OD (in)	Length (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	24	36	- 4000	11	17	25	29	36	35	23	15
			0	11	15	23	29	40	40	30	24
			4000	9	13	22	25	33	33	24	21
24	40	48	- 4000	10	16	18	25	31	25	13	10
			0	10	15	17	24	32	25	14	10
			4000	9	14	15	22	30	25	13	10
36	52	72	- 4000	10	17	20	26	29	20	15	12
			0	11	16	19	25	29	21	15	11
			4000	9	14	17	23	29	23	16	12

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. Length equal to 2 times the diameter or 36 inches, whichever is longer.

Table 2: Airflow Generated Sound Power

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
24	-4000	75	73	67	63	59	62	61	55
	- 2000	61	58	48	43	44	46	44	39
	- 1000	45	41	30	27	29	31	29	26
	1000	41	34	34	35	33	31	26	28
	2000	57	45	47	50	49	47	42	39
	4000	72	61	59	64	65	64	61	54

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)						
12	18	24	34	48	68	96
-6	-3	0	+3	+6	+9	+12

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

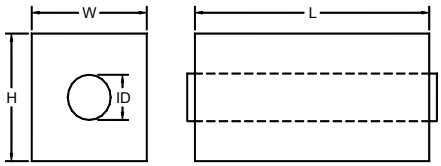
Table 4: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)				
			Face Velocity (fpm)				
			1000	2000	3000	4000	4500
12	80	0.33	0.02	0.08	0.19	0.33	0.42
12 T	85	0.29	0.02	0.07	0.16	0.29	0.37
24	260	0.33	0.02	0.08	0.19	0.33	0.42
24 T	270	0.29	0.02	0.07	0.16	0.29	0.37
36	515	0.33	0.02	0.08	0.19	0.33	0.42
36 T	535	0.29	0.02	0.07	0.16	0.29	0.37

Note: T denotes silencer with tail cone. Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

CSN-MV-L44

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



Availability
Diameter of 12 inches. Length equal to 36 inches.
Custom lengths also available.

Table 1: Insertion Loss

ID (in)	Length (in)	W x H (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	36	21 x 21	-3000	13	15	26	31	16	10	5	(3)
			0	11	12	20	16	11	9	7	(5)
			+3000	11	12	21	29	15	11	7	(5)

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

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	-3000	<61	57	53	51	57	66	67	61
	-2000	(54)	47	45	47	53	58	55	45
	-1000	(49)	(37)	38	41	39	34	(25)	(29)
	1000	(51)	(40)	40	42	43	39	(28)	(29)
	2000	63	55	51	50	54	61	60	49
	3000	66	62	60	54	58	66	69	64

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.

Table 3: Pressure Loss

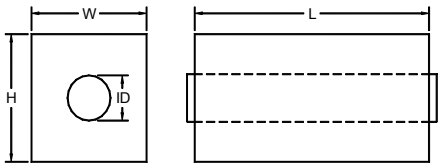
ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			500	1000	1500	2000	2500	3000
12	40	1.12	0.02	0.07	0.16	0.28	0.44	0.63

Notes: Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

Silencer is connected to ROUND duct even though outer shell of silencer is rectangular.

CSN-MV-L58

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



Availability
Diameter of 8 inches. Length equal to 36 inches.
Custom lengths also available.

Table 1: Insertion Loss

ID (in)	Length (in)	W x H (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
8	36	21 x 21	-3000	17	20	28	23	16	11	9	5
			0	16	18	23	16	12	11	9	5
			+3000	15	17	26	27	18	14	9	6

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

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
8	-3000	(53)	46	48	48	53	58	55	47
	-2000	(52)	41	43	45	49	47	39	(29)
	-1000	51	40	34	32	33	32	30	27
	1000	57	46	39	35	35	36	36	32
	2000	63	54	52	50	52	55	51	39
	3000	66	60	61	56	56	61	62	55

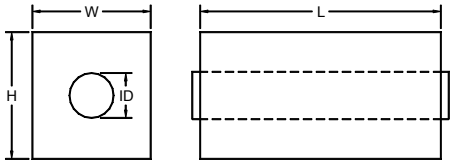
Note that ASTM inter-laboratory testing has shown that generated noise may vary as much as 6 dB in the 63hz band, and 3 dB for all other frequencies. Data in parenthesis () may be less than shown due to limitations in laboratory equipment.

Table 3: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			500	1000	1500	2000	2500	3000
8	35	0.81	0.01	0.05	0.11	0.20	0.32	0.45

Notes: Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

Silencer is connected to ROUND duct even though outer shell of silencer is rectangular.



CSN-HV-L40

Circular, Straight, No-Fill, High-Velocity Sounpak® Silencer

Availability
Diameter of 12 inches. Length equal to 36 inches.
Custom lengths also available.

Table 1: Insertion Loss

ID (in)	Length (in)	W x H (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	36	21 x 21	-3000	14	13	18	25	12	8	6	(3)
			0	10	12	11	14	7	6	4	(3)
			+3000	13	11	16	24	11	8	6	(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

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
12	-3000	(58)	(53)	52	50	56	62	59	49
	-2000	(51)	(43)	43	45	50	50	42	(31)
	-1000	(48)	(33)	(34)	35	28	(20)	(24)	(29)
	1000	(52)	(38)	36	37	30	(21)	(24)	(29)
	2000	55	46	47	47	51	50	42	(29)
	3000	(60)	55	54	53	56	61	59	47

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.

Table 3: Pressure Loss

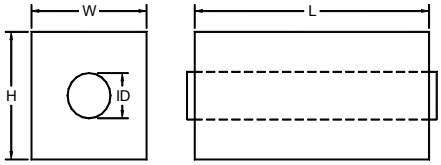
ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			750	1000	2000	3000	4000	5000
12	40	0.31	0.01	0.02	0.08	0.17	0.31	0.48

Notes: Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

Silencer is connected to ROUND duct even though outer shell of silencer is rectangular.

CSN-HV-L53

Circular, Straight, No-Fill, High-Velocity Sounpak® Silencer



Availability
Diameter of 8 inches. Length equal to 36 inches. Custom lengths also available. Width and height are both 30 inches.

Table 1: Insertion Loss

ID (in)	Length (in)	W x H (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
8	36	21 x 21	-4000	18	16	24	21	12	8	7	6
			0	16	15	18	13	8	6	6	4
			+4000	16	15	22	23	13	8	5	5

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

ID (in)	Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
8	-4000	(54)	(50)	(52)	(49)	52	58	54	(40)
	-3000	(54)	(46)	46	45	50	52	44	(30)
	-2000	(53)	42	41	42	42	38	(25)	(26)
	2000	(55)	(44)	(43)	45	47	46	36	(29)
	3000	(59)	(50)	(49)	(49)	(51)	57	52	38
	4000	(62)	(57)	(55)	(53)	(55)	60	61	50

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.

Table 3: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			1000	2000	3000	4000	5000	6000
8	35	0.33	0.02	0.08	0.19	0.33	0.51	0.74

Notes: Weights rounded up to nearest 5 lbs. Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

Silencer is connected to ROUND duct even though outer shell of silencer is rectangular.

McGill AirSilence LLC

An enterprise of United McGill Corporation - Founded in 1951

CEF-HV-L20

Circular, Elbow, Fiber-Filled, High-Velocity Sounpak® Silencer

Availability
Diameters from 3 to 26 inches, in 1-inch increments; 26 to 60 inches, in 2-inch increments. Standard lengths shown in Table 1 below. Custom lengths also available.

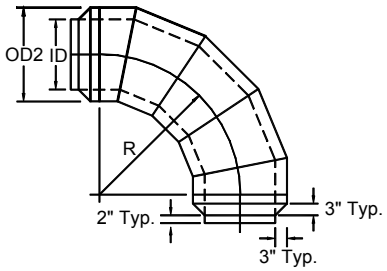


Table 1: Insertion Loss

ID (in)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
6	-3000 to 3000	3	8	13	16	24	26	26	20
12	-3000 to 3000	3	6	13	15	20	22	15	13
18	-3000 to 3000	1	6	12	16	16	15	13	17
24	-3000 to 3000	1	4	9	17	18	16	18	18
36	-3000 to 3000	1	5	12	16	15	15	18	14
48	-3000 to 3000	2	5	13	13	12	14	15	14

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: Dimensions

ID (in)	OD (in)	Elbow Radius, R
3 to 60	ID + 6	1.5(ID) + 9

Airflow Generated Sound Power

This silencer does not have internal components that would cause generated noise. The results of laboratory testing indicate indiscernible differences between the noise generated by the silencer and the noise generated by the connecting duct.

Table 3: Pressure Loss

ID (in)	Total Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)				
			Face Velocity (fpm)				
			1000	1500	2000	2500	3000
3	15	0.92	0.06	0.13	0.23	0.36	0.52
6	25	0.60	0.04	0.08	0.15	0.23	0.34
12	50	0.38	0.02	0.05	0.09	0.15	0.21
18	85	0.25	0.02	0.04	0.06	0.10	0.14
24	140	0.18	0.01	0.03	0.04	0.07	0.10
36	255	0.12	0.01	0.02	0.03	0.05	0.07
48	510	0.10	0.01	0.01	0.02	0.04	0.06
60	2015	0.08	0.00	0.01	0.02	0.03	0.04

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

McGill AirSilence LLC

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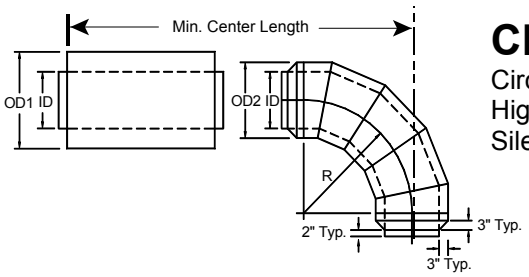

CEF-HV-L55

Circular, Elbow, Fiber-Filled, High-Velocity Soundpak® Silencer

Availability
Diameters from 3 to 26 inches, in 1-inch increments; 26 to 60 inches, in 2-inch increments. Standard lengths shown in Table 1 below. Custom lengths also available.

Table 1: Insertion Loss

ID (in)	Face Velocity (fpm)	Insertion Loss (dB)							
		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
6	-3000	15	22	35	33	38	45	38	25
	0	12	22	33	32	39	45	39	24
	3000	13	20	33	32	39	46	40	26
12	-3000	11	16	31	29	41	45	30	24
	0	10	16	29	29	41	44	27	36
	3000	10	15	28	29	42	45	28	25
18	-3000	4	17	36	36	39	31	28	28
	0	3	15	32	33	39	31	26	27
	3000	2	14	27	32	37	32	29	24
24	-3000	9	15	31	44	40	29	31	31
	0	6	15	28	42	42	29	32	30
	3000	8	13	28	38	42	32	35	29
36	-3000	11	12	31	40	40	32	33	30
	0	8	13	28	38	42	32	35	29
	3000	10	11	28	34	43	36	38	29
48	-3000	13	21	41	46	27	28	29	24
	0	9	22	37	44	28	28	30	23
	3000	12	18	37	40	28	31	32	22

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: Dimensions

ID (in)	Straight Portion OD1 (in)	Elbow Portion OD2 (in)	Minimum Centerline Length[1] (in)	Elbow Radius, R
3	ID + 12	ID + 6	1.5(ID + 6) +3(ID) + 9	1.5(ID) + 9
4	ID + 12	ID + 6	1.5(ID + 6) +3(ID) + 9	1.5(ID) + 9
5	ID + 12	ID + 6	1.5(ID + 6) +3(ID) + 9	1.5(ID) + 9
6 to 16	ID + 12	ID + 6	1.5(ID + 6) +3(ID) + 9	1.5(ID) + 9
17 to 30	ID + 12	ID + 6	1.5(ID + 6) +3(ID) + 7	1.5(ID) + 9
32 to 60	ID + 16	ID + 6	1.5(ID + 6) +3(ID) + 7	1.5(ID) + 9

Notes: (1) Any length of duct may be used between straight and elbow sections, but the standard length is 4 inches.

Airflow Generated Sound Power

This silencer does not have internal components that would cause generated noise. The results of laboratory testing indicate indiscernible differences between the noise generated by the silencer and the noise generated by the connecting duct.

Table 3: Pressure Loss

ID (in)	Total Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)				
			Face Velocity (fpm)				
			1000	1500	2000	2500	3000
3	35	0.96	0.06	0.13	0.24	0.37	0.54
6	55	0.62	0.04	0.09	0.15	0.24	0.35
12	125	0.40	0.02	0.06	0.10	0.16	0.22
18	230	0.27	0.02	0.04	0.07	0.11	0.15
24	370	0.20	0.01	0.03	0.05	0.08	0.11
36	1050	0.13	0.01	0.02	0.03	0.05	0.07
48	1860	0.11	0.01	0.02	0.03	0.04	0.06
60	2890	0.09	0.01	0.01	0.02	0.04	0.05

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

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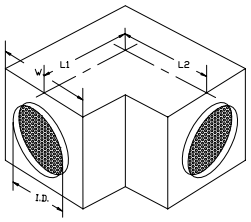

CEN-MV-L46

Circular, Elbow, No-Fill, Medium-Velocity Sounpak® Silencer

Availability
Standard lengths shown in Table 1.
Custom lengths also available.

Table 1: Insertion Loss

ID (in)	Outer Shell (in x in)	Length L1 x L2 (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
8	21 x 21	18 x 18	-3000	(7)	17	30	25	19	13	8	6
			-2000	(6)	18	31	25	18	11	8	6
			-1000	8	18	33	20	13	10	8	6
			-500	7	17	32	17	12	10	8	6
			0	7	17	33	17	11	9	7	5
			500	6	16	32	18	12	9	7	5
			1000	7	17	32	21	14	10	7	5
			2000	(5)	16	27	23	18	12	8	5
			3000	(4)	15	25	23	19	14	9	6
12	21 x 21	18 x 18	-3000	(5)	12	18	20	13	10	5	3
			-2000	(5)	13	20	22	11	7	5	3
			-1000	(5)	12	19	19	8	6	4	3
			-500	(5)	11	18	19	8	6	5	4
			0	(4)	10	16	18	7	6	5	3
			500	(5)	11	18	18	7	7	5	3
			1000	(5)	11	19	21	10	7	5	3
			2000	(4)	11	17	21	12	8	5	3
			3000	(3)	10	14	17	13	11	6	3

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

Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
-3000	79	81	73	65	65	67	70	71
-2000	75	74	62	58	58	60	62	58
-1000	63	53	50	47	45	44	38	(27)
-500	(59)	(44)	(38)	34	(28)	(22)	(23)	(26)
500	(56)	(47)	(43)	38	33	(27)	(23)	(25)
1000	75	64	52	49	50	50	44	(30)
2000	83	88	74	62	60	62	65	61
3000	86	95	88	74	69	68	71	72

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)								
4	8	12	18	24	34	48	68	96
-9	-3	0	+3	+6	+9	+12	+15	+18

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

Table 4: Pressure Loss

ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			500	1000	1500	2000	2500	3000
8	57	1.03	0.02	0.06	0.14	0.26	0.40	0.58
12	58	0.79	0.01	0.05	0.11	0.20	0.31	0.44

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

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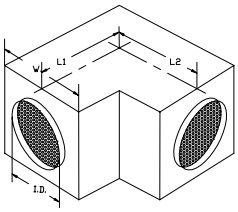


CEN-MV-L49

Circular, Elbow, No-Fill, Low-Velocity Sounpak® Silencer

Availability
Standard lengths shown in Table 1.
Custom lengths also available.

Table 1: Insertion Loss

ID (in)	Outer Shell (in x in)	Length L1 x L2 (in)	Face Velocity (fpm)	Insertion Loss (dB)							
				63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
8	21 x 21	18 x 18	-3000	(10)	18	34	(28)	23	17	10	5
			-2000	(8)	19	35	(28)	22	15	10	5
			-1000	(9)	18	34	22	17	12	9	5
			-500	(8)	16	32	19	15	12	9	5
			0	(9)	16	33	19	15	11	9	5
			500	(8)	16	32	20	15	12	9	5
			1000	(9)	16	32	(23)	18	13	9	5
			2000	(5)	15	29	27	23	17	10	5
			3000	(5)	15	29	26	22	16	9	5
12	21 x 21	18 x 18	-3000	(5)	15	24	22	16	14	7	5
			-2000	(5)	15	21	21	16	14	7	5
			-1000	(4)	15	26	24	14	9	6	5
			-500	4	14	25	22	13	9	6	5
			0	4	12	23	16	9	7	6	4
			500	(4)	13	23	21	12	9	6	4
			1000	(4)	13	23	23	14	10	6	4
			2000	(2)	(9)	(14)	19	16	(14)	(6)	(5)
			3000	(2)	(9)	(14)	19	16	(14)	(6)	(5)

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

Face Velocity (fpm)	Airflow Generated Sound Power Level (dB)							
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
-3000	79	81	73	65	65	67	70	71
-2000	73	70	57	52	55	60	62	57
-1000	(64)	51	44	44	45	45	40	(28)
-500	(59)	(44)	(38)	34	(28)	(22)	(23)	(26)
500	(56)	(47)	(43)	38	33	(27)	(23)	(25)
1000	76	66	56	51	51	51	45	(32)
2000	83	88	74	62	60	62	65	61
3000	86	95	88	74	69	68	71	72

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.

Table 3: Face Area Adjustment Factor

Silencer Diameter (in)								
4	8	12	18	24	34	48	68	96
-9	-3	0	+3	+6	+9	+12	+15	+18

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

Table 4: Pressure Loss

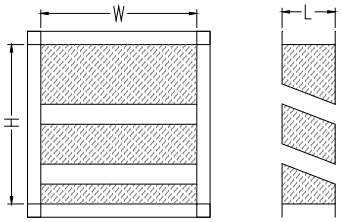
ID (in)	Weight (lbs)	Loss Coefficient	Dynamic Pressure Loss (in wg)					
			Face Velocity (fpm)					
			500	1000	1500	2000	2500	3000
8	57	2.26	0.04	0.14	0.32	0.56	0.88	1.27
12	59	2.41	0.04	0.15	0.34	0.60	0.94	1.35

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

RLF-PV-L10

Rectangular, Louver, Fiber-Filled
Plenum-Velocity Silencer

Availability
L: 6"
W: (72 inch practical limit) may be banked
H: (72 inch practical limit) may be banked



Quick Rating = P141-L10-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
6	-1000	2	3	6	10	13	10	7	8
	-500	1	3	6	10	13	13	12	11
	0	1	3	6	10	13	12	10	10
	500	1	3	6	10	13	12	10	11
	1000	1	3	6	10	13	12	11	11

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
-1000	(79)	77	70	61	58	58	56	50
-500	(66)	59	(48)	43	41	(37)	(33)	(31)
500	(65)	58	(49)	48	51	48	(41)	(33)
1000	(72)	73	69	65	64	65	63	55

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 =18.5 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
6	22.59	0.09	0.35	0.79	1.41	2.20	3.17

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 PXXX is the pressure drop in hundredths of an in. wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

McGill AirSilence LLC

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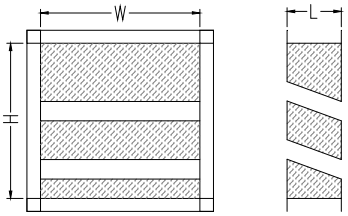
RLF-PV-L13

Rectangular, Louver, Fiber-Filled
Plenum-Velocity Silencer

Availability
L: 8"
W: (72 inch practical limit) may be banked
H: (72 inch practical limit) may be banked



Quick Rating = P120-L13-M40

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
8	-1000	3	6	8	12	16	12	8	8
	-500	1	4	7	12	15	14	12	10
	0	1	4	7	12	15	13	10	10
	500	1	4	7	11	15	13	10	10
	1000	2	4	7	11	14	13	11	11

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
-1000	76	73	67	61	59	61	58	52
-500	65	57	47	44	44	40	33	(31)
500	65	59	49	48	49	48	40	(33)
1000	76	79	70	65	63	64	62	56

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

Weight =18.5 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
8	19.21	0.07	0.30	0.67	1.20	1.87	2.69

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 in. wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled "Quick Rating Guide" for further information.

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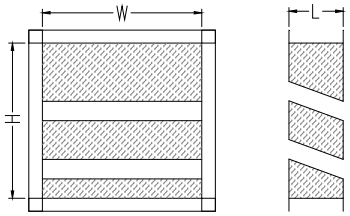
RLF-PV-L15

Rectangular, Louver, Fiber-Filled
Plenum-Velocity Silencer

Availability
L: 12 inches
W: (72 inch practical limit) may be banked
H: (72 inch practical limit) may be banked



Quick Rating = P87-L15-M42

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
12	-1000	2	5	9	14	16	14	11	10
	-500	2	5	8	13	16	14	10	10
	0	2	5	8	13	16	13	9	10
	500	2	5	8	13	16	14	10	11
	1000	2	5	8	13	15	14	10	11

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
-1000	71	70	61	55	54	56	51	44
-500	(58)	49	41	39	39	32	(27)	(29)
500	(57)	51	44	43	43	38	(37)	(29)
1000	70	70	62	60	57	58	54	53

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 =14.8 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
12	13.89	0.05	0.22	0.49	0.87	1.35	1.95

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 in. wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled "Quick Rating Guide" for further information.

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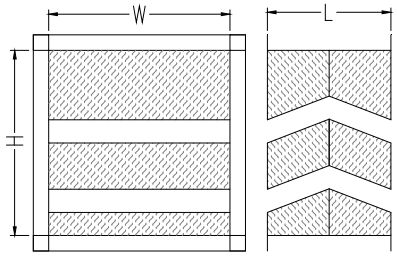

RLF-PV-L26

Rectangular, Louver, Fiber-Filled Plenum-Velocity Silencer

Availability
L: 24 inches
W: (72 inch practical limit) may be banked
H: (72 inch practical limit) may be banked

Quick Rating = P101-L26-M72

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
24	-1000	(4)	9	16	25	26	21	15	13
	-500	3	9	16	25	26	21	17	15
	0	3	8	15	25	26	21	15	16
	500	3	8	15	23	25	21	15	15
	1000	2	7	14	22	24	(22)	17	16

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
-1000	73	79	67	55	55	59	55	49
-500	66	59	45	41	41	36	(31)	(31)
500	(65)	58	48	45	46	41	35	(32)
1000	72	77	68	61	59	62	59	53

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 =14.8 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
24	16.14	0.06	0.25	0.57	1.01	1.57	2.26

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 PXXX is the pressure drop in hundredths of an in. wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 0 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 0 fpm. See the sheet titled “Quick Rating Guide” for further information.

The products depicted in this booklet were current at the time of publication. As a quality-conscious manufacturer, McGill AirSilence LLC is continually seeking ways to improve its products to better serve its customers. Therefore, all designs, specifications, and product features are subject to change without notice.

McGill AirSilence LLC

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Form No.: MASIL-SPK-PD Rev. 2 2/11