McGill AirSilence LLC

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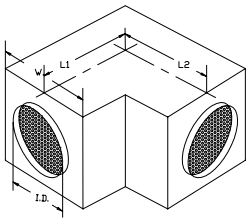

CEN-MV-L46

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.