



Elbow Attenuator - Model **EMP**

			Dynamic Insertion Loss (dB) Octave Band/Center Frequency (Hz)								
Model	Flow	Velocity fpm	Press Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
EMP-36	Reverse	-1500	0.42	8	15	19	21	22	18	17	14
	Flow	-1000	0.19	9	14	18	21	22	19	18	14
		0	0	8	14	17	20	22	19	18	14
	Forward	1000	0.19	8	13	17	20	23	21	17	15
	Flow	1500	0.42	7	13	17	19	23	21	17	15
EMP-48	Reverse	-1500	0.45	8	16	21	27	28	25	23	16
	Flow	-1000	0.20	9	15	20	26	27	24	22	16
		0	0	8	15	19	25	27	24	23	16
	Forward	1000	0.20	8	12	19	25	28	26	23	17
	Flow	1500	0.45	7	13	19	26	28	26	24	18
EMP-60	Reverse	-1500	0.49	11	15	23	30	32	28	25	18
	Flow	-1000	0.22	11	16	22	31	32	29	25	18
		0	0	9	16	21	30	32	29	26	18
	Forward	1000	0.22	9	14	21	30	33	30	27	18
	Flow	1500	0.49	8	14	20	29	32	29	28	19
EMP-72	Reverse	-1500	0.51	13	16	26	35	36	33	28	23
	Flow	-1000	0.23	13	17	25	36	37	34	28	23
		0	0	10	18	24	35	36	34	28	22
	Forward	1000	0.23	10	17	24	35	36	34	28	24
	Flow	1500	0.51	10	17	23	34	35	33	30	25
EMP-84	Reverse	-1500	0.54	13	19	32	39	38	35	28	23
	Flow	-1000	0.24	14	20	32	40	40	37	29	24
		0	0	11	21	31	39	39	37	29	23
	Forward	1000	0.24	11	20	31	39	39	38	30	24
	Flow	1500	0.54	10	20	30	38	38	36	30	25

Model number indicates centerline length of unit in inches.

Forward Flow - characteristic of supply or discharge fan systems.

Reverse Flow - typical of return or intake fan systems.

Pressure Drop Calculation for Specific Velocity

Actual Velocity (fpm) = CFM x 144 , [Height (in.) x Width (in.)]

$$\text{Pressure Drop} = \left(\frac{\text{Actual Velocity}}{1500} \right)^2 \times \text{Catalog Pressure Drop @ 1500 fpm}$$

Standard Construction

22 gauge galvanized casings
24 gauge perforated baffles
Acoustic quality Fiberglass media

Optional Features

Mylar or polyethylene liners
Fiberglass cloth liners
Stainless steel or aluminum construction

Computer program available which provides attenuator performance at actual job conditions.



Rectangular Elbow Attenuators

Self-noise Power Levels

Self-Noise Power Levels, dB re 10 ⁻¹² Watts Octave Band/Center Frequency (Hz)									
Model	Velocity fpm	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
EHP	750	55	41	37	36	43	45	39	33
	1000	60	50	42	38	45	53	50	44
	1500	71	62	55	50	50	59	63	59
EMP	750	54	40	35	36	42	39	32	29
	1500	60	58	55	50	50	57	56	50
	2000	72	62	57	56	58	62	64	59
ELP	1000	59	40	33	35	42	41	32	27
	2000	68	57	52	49	51	58	59	53
	2500	75	64	59	55	55	62	65	61

Area Correction Factors - Listed self-noise power levels are for silencers with a face area of four (4) square feet. For silencers with different face areas, the following values must be added to those in the table.

Face area (sq. ft.)	0.5	1	2	4	6	8	16	32	64	128
PWL Correction Factors, dB	-9	-6	-3	0	2	3	6	9	12	15

