

Low Frequency Attenuator - Model **ALMHP**

				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
ALMHP-36	Reverse Flow	-1500	0.97	7	11	19	26	27	19	15	11
		-1000	0.43	7	10	18	26	26	19	15	11
		-500	0.11	6	10	17	25	25	20	15	11
	Forward Flow	0		6	10	17	25	25	20	15	10
		500	0.11	6	10	17	25	25	21	15	11
		1000	0.43	6	10	17	24	25	21	15	11
		1500	0.97	6	9	16	24	24	22	16	12
ALMHP-48	Reverse Flow	-1500	1.02	8	14	23	32	32	23	16	11
		-1000	0.46	8	13	22	33	32	23	16	11
		-500	0.11	7	13	21	32	31	23	16	11
	Forward Flow	0		7	13	21	32	31	23	16	11
		500	0.11	7	13	21	32	31	24	16	12
		1000	0.46	7	12	20	28	30	25	16	12
		1500	1.02	7	12	19	27	29	25	17	13
ALMHP-60	Reverse Flow	-1500	1.08	10	18	28	39	38	28	18	12
		-1000	0.48	10	18	27	40	38	28	18	12
		-500	0.12	9	17	26	40	37	28	18	12
	Forward Flow	0		9	16	25	40	37	28	17	12
		500	0.12	9	16	25	40	37	28	17	13
		1000	0.48	8	15	24	32	37	28	18	13
		1500	1.08	8	15	23	32	35	28	18	14
ALMHP-72	Reverse Flow	-1500	1.12	12	20	32	42	42	30	20	13
		-1000	0.5	11	19	31	43	41	30	20	13
		-500	0.12	10	19	30	43	42	31	19	14
	Forward Flow	0		10	18	30	43	44	32	19	14
		500	0.12	9	17	27	42	40	30	19	14
		1000	0.5	10	17	28	38	41	32	20	15
		1500	1.12	10	17	27	37	39	31	23	15
ALMHP-84	Reverse Flow	-1500	1.15	14	22	37	45	46	32	22	15
		-1000	0.51	13	22	36	46	45	33	22	15
		-500	0.13	12	21	35	47	48	34	22	15
	Forward Flow	0		12	21	35	48	51	36	21	16
		500	0.13	12	20	34	46	51	36	22	17
		1000	0.51	12	19	32	44	46	36	23	17
		1500	1.15	11	19	32	43	43	35	28	18

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) = $\text{CFM} \times 144 \div [\text{Height (in.)} \times \text{Width (in.)}]$

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.

Low Frequency Attenuator - Model **ALMHP**

				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
ALMHP-96	Reverse Flow	-1500	1.27	14	23	39	47	47	34	24	16
		-1000	0.57	13	23	39	47	47	34	24	15
		-500	0.14	12	22	38	47	48	35	24	15
	Forward Flow	0		12	22	38	48	49	36	23	15
		500	0.14	12	22	37	47	49	36	23	16
		1000	0.57	12	21	35	45	47	36	23	16
		1500	1.27	11	21	35	45	45	36	25	17
ALMHP-108	Reverse Flow	-1500	1.38	14	25	42	49	48	36	26	17
		-1000	0.62	14	25	42	48	49	36	26	16
		-500	0.15	13	24	42	48	49	36	26	16
	Forward Flow	0		13	24	41	48	48	36	16	0
		500	0.15	13	24	40	48	48	36	24	16
		1000	0.62	13	23	39	48	48	36	24	16
		1500	1.38	12	23	39	47	47	37	23	17
ALMHP-120	Reverse Flow	-1500	1.49	16	27	46	52	50	39	29	18
		-1000	0.66	15	27	46	53	50	39	28	18
		-500	0.17	14	27	45	54	51	41	29	18
	Forward Flow	0		14	26	45	55	52	42	28	18
		500	0.17	14	26	44	55	52	43	28	19
		1000	0.66	13	25	43	52	50	42	29	20
		1500	1.49	13	25	42	50	50	42	29	20

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 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
ALHP	1000	56	41	41	47	46	41	30	30
	1500	56	47	45	48	53	59	56	48
	2000	63	55	49	51	54	63	67	60
ALMHP	1000	51	40	39	42	42	40	27	26
	1500	53	45	46	48	49	52	46	39
	2000	57	52	54	53	53	58	58	50
ALMP	1000	47	39	37	37	39	39	24	22
	1500	50	43	47	48	45	46	36	30
	2000	52	49	59	55	52	54	49	40
ALMLP	1000	45	37	35	35	37	37	22	20
	1500	47	41	43	43	42	44	32	29
	2000	49	46	53	50	49	53	46	39
ALLP	1000	44	36	33	34	35	35	21	19
	1500	45	40	39	38	40	43	29	28
	2000	46	43	47	46	47	52	44	38

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