

Low Frequency

Hospital/Clean Room Attenuator - Model **ALLPC**

			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
ALLPC-36	Reverse Flow	-2000	0.32	5	7	11	14	14	11	9	6
		-1500	0.18	5	7	10	13	14	11	9	6
		-1000	0.08	5	7	10	13	13	11	8	6
	Forward Flow	0		4	6	10	13	13	11	8	6
		1000	0.08	4	5	9	12	13	10	7	5
		1500	0.18	4	5	9	12	13	10	7	5
		2000	0.32	4	5	9	11	12	10	6	5
ALLPC-60	Reverse Flow	-2000	0.36	8	12	15	20	22	16	11	8
		-1500	0.20	8	12	15	20	22	16	11	8
		-1000	0.09	8	12	15	19	21	15	10	7
	Forward Flow	0		7	11	15	18	20	15	10	6
		1000	0.09	7	10	14	18	19	15	10	6
		1500	0.20	7	10	14	18	19	15	10	6
		2000	0.36	7	9	13	17	19	14	9	6
ALLPC-84	Reverse Flow	-2000	0.40	11	14	21	25	27	22	13	9
		-1500	0.23	11	14	21	25	27	22	13	9
		-1000	0.10	10	13	20	25	28	22	13	8
	Forward Flow	0		10	13	19	25	28	22	13	8
		1000	0.10	10	12	18	24	26	20	12	8
		1500	0.23	10	12	18	24	26	20	12	8
		2000	0.36	10	12	17	23	26	20	11	7
ALLPC-120	Reverse Flow	-2000	0.44	12	19	26	33	36	24	16	11
		-1500	0.25	12	19	26	33	36	24	16	11
		-1000	0.11	12	18	26	33	36	24	15	11
	Forward Flow	0		11	17	25	32	35	23	15	11
		1000	0.11	11	16	25	30	35	23	14	10
		1500	0.25	11	16	25	30	35	23	14	10
		2000	0.44	11	16	24	29	35	23	14	10

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 Fill encapsulated in polyethylene to eliminate erosion and absorption of gases

Optional Features

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
ASPC	1000	63	50	42	41	44	44	38	34
	1500	69	58	50	49	50	55	55	52
	2000	83	75	60	59	57	61	66	65
AMPC	1000	55	48	37	35	37	35	27	27
	1500	61	57	52	49	48	55	55	50
	2000	70	63	58	55	53	59	62	58
ALPC	1000	53	42	36	33	35	29	22	27
	1500	60	56	51	47	46	53	51	44
	2000	67	62	56	55	52	59	59	53
ALSPC	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
ALMPC	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
ALLPC	1000	45	37	34	35	36	36	22	20
	1500	46	41	40	39	41	44	30	29
	2000	47	44	48	47	48	53	45	39

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