



## Standard Attenuator - Model **HP**

		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
HP-36	Reverse	-1500	0.43	6	11	17	27	38	32	20	13
		-1000	0.19	6	10	16	26	37	32	20	14
	Flow	-500	0.05	6	10	15	26	37	33	20	14
		0		5	9	15	25	37	33	22	14
	Forward	500	0.05	5	8	14	24	36	33	23	15
		1000	0.19	5	8	14	24	36	33	23	15
		1500	0.43	5	8	14	24	35	34	24	15
HP-60	Reverse	-1500	0.59	8	18	28	36	42	37	30	18
		-1000	0.26	8	17	26	37	45	41	31	19
	Flow	-500	0.07	8	16	24	38	47	48	32	19
		0		7	15	23	35	48	48	35	21
	Forward	500	0.07	7	14	22	35	47	47	35	22
		1000	0.26	7	13	21	35	46	46	35	22
		1500	0.59	7	13	20	34	45	44	35	23
HP-84	Reverse	-1500	0.77	11	24	38	45	46	42	39	23
		-1000	0.34	11	23	35	48	52	49	42	24
	Flow	-500	0.09	9	21	33	49	58	62	44	24
		0		9	20	31	48	58	62	47	27
	Forward	500	0.09	9	18	30	47	59	65	47	28
		1000	0.34	9	17	28	45	57	59	47	29
		1500	0.77	8	17	26	43	54	49	47	30
HP-120	Reverse	-1500	1.15	13	29	48	55	62	63	50	34
		-1000	0.51	12	29	47	54	62	63	50	34
	Flow	-500	0.13	12	28	46	52	62	64	49	32
		0		11	28	45	51	63	65	49	32
	Forward	500	0.13	10	28	44	50	62	65	49	31
		1000	0.51	10	26	43	49	61	66	49	33
		1500	1.15	9	25	42	49	60	66	49	34

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

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.



# Rectangular Attenuators

## Self-noise Power Levels

Self-Noise Power Levels, <b>dB re 10<sup>-12</sup> Watts</b> Octave Band/Center Frequency (Hz)									
Model	Velocity fpm	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
HP	1000	53	44	38	37	41	44	38	31
	1500	58	53	47	46	47	54	53	48
	2000	71	62	55	54	52	59	63	59
MHP	1000	54	46	37	36	39	39	32	29
	1500	58	53	46	44	45	49	47	43
	2000	70	62	56	54	52	59	62	58
MP	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
MLP	1000	54	45	37	36	36	32	24	27
	1500	60	56	52	49	48	55	53	47
	2000	68	62	57	55	52	59	60	55
LP	1000	53	42	37	35	35	29	22	27
	2000	60	56	52	49	48	55	51	44
	2500	67	62	57	55	52	59	59	53

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