



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

Dynamic Insertion Loss (dB)
Octave Band/Center Frequency (Hz)

		Velocity fpm	Press Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MSPC-36	Reverse	-1500	0.35	7	10	14	21	30	31	26	9
	Flow	-1000	0.16	6	9	13	20	29	30	25	9
		-500	0.04	6	8	12	20	29	30	25	9
		0		6	8	12	19	29	30	25	9
	Forward	500	0.04	6	8	12	18	28	30	24	9
	Flow	1000	0.16	6	7	12	18	28	30	24	9
		1500	0.35	5	7	11	17	28	29	24	9
MSPC-48	Reverse	-1500	0.42	9	11	16	25	36	39	28	10
	Flow	-1000	0.19	8	10	15	23	35	38	27	9
		-500	0.05	7	9	14	23	35	39	27	9
		0		7	9	14	22	35	39	27	9
	Forward	500	0.05	7	9	14	22	35	38	26	10
	Flow	1000	0.19	7	8	14	21	35	38	26	10
		1500	0.42	6	8	13	21	34	37	26	10
MSPC-60	Reverse	-1500	0.48	11	13	18	29	43	48	30	11
	Flow	-1000	0.22	10	11	18	27	42	47	30	10
		-500	0.05	9	11	17	26	42	48	30	10
		0		9	11	17	26	42	47	29	10
	Forward	500	0.05	8	10	17	25	42	47	29	11
	Flow	1000	0.22	8	10	16	24	42	47	29	11
		1500	0.48	7	9	14	24	41	46	29	12
MSPC-72	Reverse	-1500	0.5	11	13	20	33	45	50	34	12
	Flow	-1000	0.22	11	12	19	31	44	50	34	11
		-500	0.06	10	12	18	30	43	50	34	11
		0		10	12	18	30	43	49	33	12
	Forward	500	0.06	9	11	18	29	43	49	33	12
	Flow	1000	0.22	9	11	18	28	42	49	32	13
		1500	0.5	8	10	16	28	42	48	31	14
MSPC-84	Reverse	-1500	0.51	12	14	22	37	47	53	39	13
	Flow	-1000	0.23	12	14	21	35	46	54	39	13
		-500	0.06	11	13	20	35	45	53	38	13
		0		11	13	20	34	45	52	37	13
	Forward	500	0.06	11	12	20	33	45	52	37	14
	Flow	1000	0.23	11	12	20	33	44	52	36	15
		1500	0.51	10	11	18	32	44	50	34	16

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.



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		Dynamic Insertion Loss (dB) Octave Band/Center Frequency (Hz)									
		Velocity fpm	Press Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MSPC-96	Reverse	-1500	0.54	13	15	24	39	49	56	40	13
	Flow	-1000	0.24	13	15	23	36	48	55	40	13
		-500	0.06	12	14	22	38	47	54	39	14
		0		11	14	24	38	46	53	38	14
	Forward	500	0.06	11	13	21	38	46	52	38	14
	Flow	1000	0.24	11	13	20	37	45	52	37	15
		1500	0.54	10	12	20	36	45	50	36	16
MSPC-108	Reverse	-1500	0.57	14	16	26	43	52	58	42	14
	Flow	-1000	0.25	14	16	24	38	51	56	42	14
		-500	0.06	13	15	23	41	50	55	40	15
		0		12	15	23	44	48	54	40	15
	Forward	500	0.06	12	14	22	43	48	53	40	15
	Flow	1000	0.25	12	14	22	42	47	52	39	16
		1500	0.57	11	14	24	41	47	51	38	17
MSPC-120	Reverse	-1500	0.6	15	17	29	42	55	61	44	16
	Flow	-1000	0.27	15	17	29	41	53	61	45	16
		-500	0.07	14	16	28	41	52	59	45	17
		0		13	16	27	41	50	58	45	18
	Forward	500	0.07	13	15	26	40	50	59	45	18
	Flow	1000	0.27	12	15	24	38	48	57	45	20
		1500	0.6	12	14	23	38	48	54	43	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) = $\sqrt{\text{CFM} \times 144 \div [\text{Height (in.)} \times \text{Width (in.)}]}$

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

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
SPC	1000	63	50	42	41	44	44	28	34
	1500	69	58	50	49	50	55	55	52
	2000	83	75	60	59	57	61	66	65
MSPC	1000	59	49	39	38	40	39	32	30
	1500	65	57	51	49	49	55	55	51
	2000	76	69	59	57	55	60	64	61
MPC	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
MLPC	1000	53	42	36	33	35	29	22	27
	1500	60	56	51	48	47	54	53	47
	2000	68	62	57	55	52	59	60	55
LPC	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

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