



"The ART of Noise Control"

For your local ArtUSA Representative

Call: 1-888-454-6973

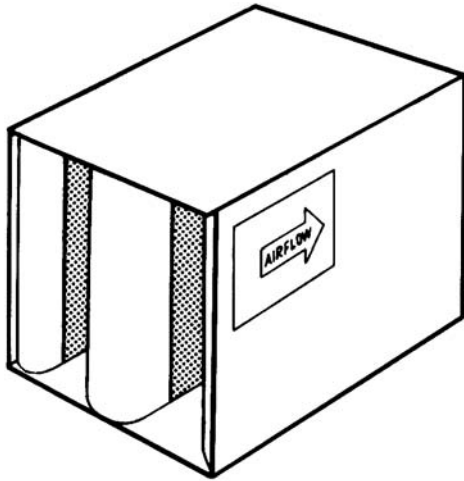
Internet: www.artusaindustries.us

Sound Attenuator

NO. 757-89

SUPERSEDES NO. 757

ENGINEERING DATA SHEET



MODEL MP

RECTANGULAR

NOMENCLATURE EXAMPLE:

WIDTH	HEIGHT	LENGTH	MODEL
24	24	3	MP

ArtUSA Acoustics sound attenuators are engineered to achieve a maximum insertion loss with a minimum pressure drop. ArtUSA Acoustics sound attenuators feature airfoil design for efficient aerodynamic performance, as well as superior acoustical materials and totally galvanized steel construction, guaranteeing excellent reliability and performance.

MODEL NO.	OCTAVE BANDS	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	CENTER FREQUENCY (Hz)	63	125	250	500	1000	2000	4000	8000
	FACE VELOCITY FPM	DYNAMIC INSERTION LOSS IN DECIBELS							
3MP	-1500	1	5	12	23	32	27	14	8
	-1000	0	4	12	22	32	27	13	8
	0	1	4	11	21	31	28	15	10
	+1000	0	4	10	20	29	29	16	11
	+1500	0	3	9	19	28	29	17	10
5MP	-1500	2	8	19	39	46	48	19	11
	-1000	3	7	18	37	48	40	20	11
	0	3	5	16	35	49	42	22	14
	+1000	3	5	15	33	47	43	23	14
	+1500	2	5	14	31	45	42	23	15
7MP	-1500	3	16	31	43	45	41	31	18
	-1000	3	14	28	45	50	48	34	18
	0	3	12	25	45	55	45	37	22
	+1000	2	11	23	43	53	46	39	23
	+1500	2	11	22	41	52	46	40	25
10MP	-1500	4	16	38	46	49	44	36	18
	-1000	4	14	37	47	54	55	37	18
	0	8	14	29	42	56	60	43	23
	+1000	8	14	28	42	55	62	46	26
	+1500	5	11	31	44	53	51	46	26

THIS TABLE CONTAINS BOTH FORWARD (+) AND BACKWARD (-) FLOW ACOUSTIC AND AERODYNAMIC RATINGS BASED ON TEST RESULTS MEASURED IN ACCORDANCE WITH ASTM E477. COPIES OF THESE TEST REPORTS CAN BE FURNISHED UPON REQUEST.



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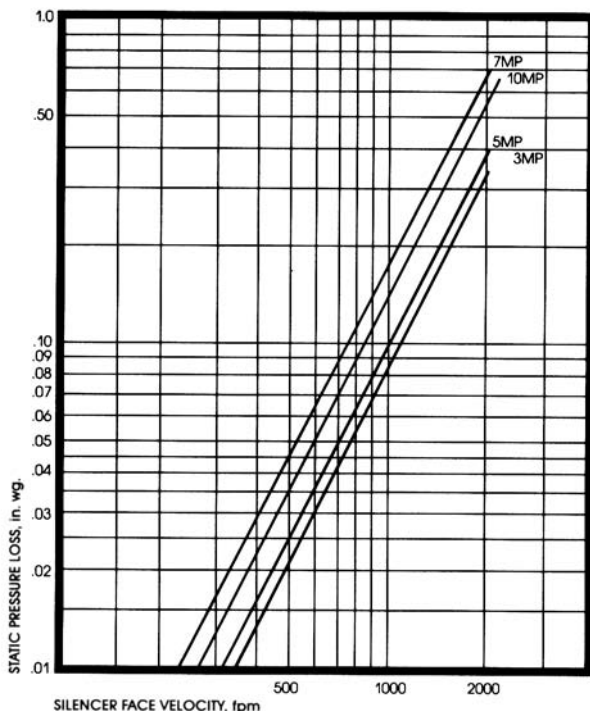
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AIR FLOW RATING FOR THE 12 X 12 SIZE, SHADED, REPRESENTS BOTH CFM AND FACE VELOCITY IN FPM.
USE THIS TO GET THE RATING FOR MULTIPLE MODULE SILENCERS.

MODEL	3MP	0.09	0.16	0.23	0.31	0.46	0.61	0.76	0.92	1.15	1.38	1.54	1.69
	5MP	0.10	0.20	0.27	0.37	0.54	0.73	0.91	1.09	1.37	1.64	1.82	2.00
7MP	0.17	0.34	0.52	0.69	1.06	1.41	1.76	2.11	2.64	3.17	3.52	3.87	
10MP	0.14	0.28	0.41	0.55	0.83	1.11	1.39	1.67	2.09	2.50	2.78	3.06	
SIZE W x H	FACE AREA	AIR FLOW IN CFM											
6 x 12	0.50	500	707	866	1000	1225	1414	1581	1732	1937	2122	2236	2345
6 x 24	1.00	1000	1414	1732	2000	2449	2828	3162	3464	3873	4243	4472	4690
6 x 36	1.50	1500	2121	2598	3000	3674	4242	4743	5196	5810	6365	6708	7035
12 x 12	1.00	1000	1414	1732	2000	2449	2828	3162	3464	3873	4243	4472	4690
12 x 24	2.00	2000	2828	3464	4000	4898	5656	6324	6928	7746	8486	8944	9380
12 x 36	3.00	3000	4242	5196	6000	7347	8484	9486	10392	11619	12729	13416	14070
18 x 12	1.50	1500	2121	2598	3000	3674	4242	4743	5196	5810	6365	6708	7035
18 x 18	2.25	2500	3182	3897	4500	5510	6363	7115	7794	8714	9547	10062	10553
18 x 30	3.75	3750	5303	6495	7500	9184	10605	11858	12990	14524	15911	16770	17588
18 x 36	4.50	4500	6363	7794	9000	11021	12726	14229	15588	17429	19094	20124	21105
18 x 48	6.00	6000	8484	10392	12000	14694	16968	18972	20784	23238	25458	26832	28140
24 x 24	4.00	4000	5656	6928	8000	9796	11312	12648	13856	15492	16972	17888	18760
24 x 36	6.00	6000	8484	10392	12000	14694	16968	18972	20784	23238	25458	26832	28140
24 x 48	8.00	8000	11312	13856	16000	19592	22624	25296	27712	30984	33944	35776	37520
30 x 24	5.00	5000	7070	8660	10000	12245	14140	15810	17320	19365	21215	22360	23450
30 x 36	7.50	7500	10605	12990	15000	18368	21210	23715	25980	29048	31823	33540	35175
30 x 48	10.00	10000	14140	17320	20000	24490	28280	31620	34640	38730	42430	44720	46900
36 x 36	9.00	9000	12726	15588	18000	22041	25452	28458	31176	34857	38187	40248	42210
36 x 42	10.50	10500	14847	18186	21000	25715	29694	33201	36372	40667	44552	46956	49245
36 x 48	12.00	12000	16968	20784	24000	29388	33936	37944	41568	46476	50916	53664	56280



Air flow ratings shown include static regain. Therefore if silencers are installed immediately before or after elbows, transitions, at the intake or discharge of the system, or without duct, allowance to compensate for such conditions must be included when calculating the operating pressure loss thru the silencer. Failure to make allowance for these conditions can add several velocity heads to the pressure loss of the system. All acoustic and aerodynamic performance obtained on 24" x 24" cross section production units.

SELF-GENERATED SOUND POWER RATINGS (PWL) dB re 10⁻¹² WATTS

OCTAVE BAND		1	2	3	4	5	6	7	8
HZ		63	125	250	500	1000	2000	4000	8000
MODEL	FACE VELOCITY								
3MP	+2000	59	56	52	48	46	47	48	44
5MP	+1000	48	39	38	34	29	27	25	27
7MP	-1000	50	51	50	47	51	52	43	36
10MP	-2000	57	61	59	60	61	63	64	55

SELF-GENERATED SOUND RATINGS/FACE AREA ADJUSTMENT FACTORS

FACE AREA	.50	1	2	4	8	10	32	64	128
PWL ADJUSTMENT FACTOR, dB	-9	-6	-3	0	+3	+6	+9	+12	+15