

HOW TO SILENCE YOUR FAN



Sales & Engineering Div.
Florida Office
Fax: 904-739-5680
Tel: 904-731-3577


**THE
AEROACOUSTIC
CORP.**™
WWW.AEROACOUSTIC.COM
E-MAIL: AERO@AEROACOUSTIC.COM

Sales, Engineering & Manufacturing
169-193 Highland Parkway
Roselle, New Jersey 07203
Fax: 908-241-8818
Tel: 908-241-8600

HOW TO SILENCE YOUR FAN

Both the public awareness of noise and the present and future noise exposure requirement set forth by the Occupational Safety and Health Administration (OSHA) preclude emission of raw fan noise. Most modern installations of heavy duty fans include a silencer.

The AEROACOUSTIC® Corporation has designed five series of fan silencers in a wide variety of sizes and capacities which are compatible with popular size airfoil blade and other type fans to reduce fan noise to required or legal levels. Also available are rainhoods, flow measuring devices and filter assemblies

Correcting to OSHA and "A" weight requirements:

Many specifications call for a specific dB "A" rating or meeting an OSHA criterion at some distance from the fan silencer inlet. If the requirement is to meet the OSHA equivalent contours, use the OSHA family of curves as your criterion, shown at right.

If an actual "A" weighted level is required, correct the levels calculated in computing the SPL by the "A" weighting, as follows:

Octave Band CF, KHz:	.063	.125	.25	5	1	2	4	8
Correction, from dB to dB "A":	-26	-16	-8	-3	0	+1	+1	-1

Over All Levels vs. Octave Band Levels:

A level in one octave band is only part of the total noise level. In order to find the overall noise level, the levels in each octave band must be combined logarithmically. For instance, if the "A" weighted level is equal in octave band, then the overall level will be 9 dB greater than the individual levels.

Thus, when designing a silencer for an over-all level, 9 dB must be subtracted from the over-all criterion as the criterion for each octave-band, corrected by the "A" weighting, must be no higher than 81 dB "A" Equivalent sound level contours. Octave band sound pressure levels may be converted to the equivalent "A"-weighted sound level by plotting them on this graph and noting the "A"-weighted sound level corresponding to the highest penetration into the sound level contours. The equivalent "A"-weighted sound level, which may differ from the actual "A"-weighted level of noise, is used to determine exposure limits from the table on the right:

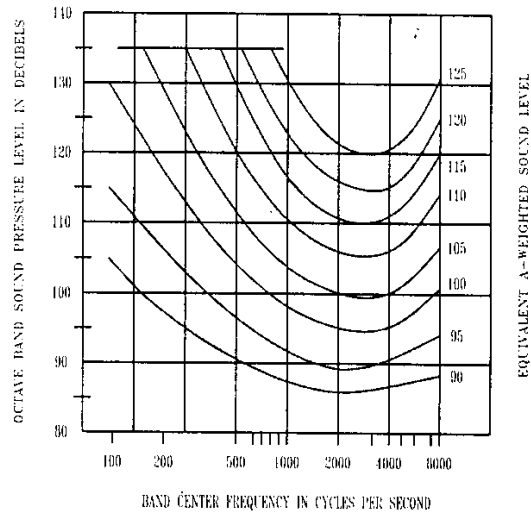


Table 1
PERMISSIBLE NOISE LEVEL

Duration per day, hours	8	6	4	3	2	1 1/2	1	1/2	1/4 or less
Sound level dBA	90	92	95	97	100	102	105	110	115

CONTENTS	PAGE
How To Silence Your Fan	2
Calculating Required Acoustic Performance	3
Divergence Correction Curve	4, 5
Model CI (inlet silencer)	6, 7, 8
Model CIH (horizontal rainhoods for Model CI's)	9
Model CIF (filter assemblies for Model CI's)	10
Model CFH (filter/rainhoods for Model CI's)	11
Model DF (discharge silencers)	12, 13, 14
Model DFV (vertical rainhoods for Model DF's)	15
Model DFH (horizontal rainhoods for Model DF's)	16
Model SI (inlet silencers)	18, 19, 20
Model SIH (horizontal rainhoods for Model SI's)	21
Model SIV (vertical rainhoods for Model SI's)	22
Model SIF (filters for Model SI's)	23
Model SFV (filter/rainhoods for Model SI's)	24
Model IB (inlet silencers)	25
Industrial Model Tubulars (inlet and outlet tubulars)	26 thru 33
Flow Measurement Devices (piezometer and velocity tubes)	34 thru 37
Paint Specifications, Accessories and Options	38
How To Specify A Silencer	40

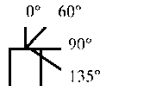
Calculating Required Acoustic Performance

Computing PWL—Fan inlet sound power level, dB re 10-12 watts. The total fan sound power level can be obtained from most fan manufacturers and should be calculated at the center of the fan. The following corrections should be calculated and applied to the total fan sound level in order to obtain the fan inlet sound power level.

- Inlet flow control vanes can add 5-10 dB to the fan noise when partially open
- Acoustic insertion loss of the inlet box.
- A reduction of 3dB to account for the fact that half of the fan power will flow out of the fan discharge (or inlet for discharge silencer) i.e. $10 \log 0.5 = -3\text{dB}$.
- No correction for end reflection at the fan inlet since this effect occurs at the silencer inlet and is included in the silencer sound pressure calculation.

Calculating Directivity

When the specifications require one of the following measuring points, the corresponding correction must be incorporated into the sound pressure level calculation.

	Octave Band Center Frequency, Hz								
		63	125	250	500	1000	2000	4000	8000
Under 3' x 3'	0° to 60°	0	0	0	0	0	0	0	0
	90°	0	0	0	-1	-1	-2	-2	-2
	135°	0	0	0	-2	-2	-4	-4	-4
3' x 3' to 10' x 10'	0°	4	4	4	5	5	6	6	6
	90°	-2	-2	-2	-4	-4	-8	-8	-8
	135°	-3	-3	-3	-7	-7	-12	-12	-12
over 10' x 10'	0°	8	8	8	9	9	10	10	10
	90°	-3	-3	-3	-9	-9	-14	-14	-14
	135°	-4	-4	-4	-11	-11	-18	-18	-18

Calculating S.P. L.:

Sound pressure level is related to sound power level by relation:

$$\text{SPL} = \text{LW} + 10\text{dB} - \text{DIV}$$

where SPL = Sound pressure level, dB re 0.0002 microbars

LW = Fan inlet sound power level, dB re 10-12 watts

DIV = (divergence) rate of decrease of sound pressure with distance from the noise source, dB
 $= 10 \log 2 \frac{R}{R^2}$

where R = Radius in feet from the silencer or rainhood face to the measuring point.

The calculations for divergence is accurate in a far field but has some error in a near field. A more accurate calculation is as follows:

$$\text{DIV} = 10 \log S\text{-correction}$$

where S = Face area in square feet of the silencer or rainhood
 $= M \times N$

where M = Major silencer and rainhood dimension

N = Minor silencer and rainhood dimension

The Aeroacoustic® Corp. recognizes a condition to be in a near field when R over M is equal to or less than 1 and a far field when R over M is equal to or greater than 1. To determine the correction, use the appropriate curve on the following pages. These relations above give the average value of the sound pressure level averaged over a hemisphere centered on the silencer face.

Aerodynamic Sizing:

Each silencer model number has a pressure drop of 1.00" of water at the rated airflow and density of 0.075. The actual pressure drop in inches of water for conditions other than this can be determined as follows:

$$\left(\frac{p_{\text{Actual}}}{0.075} \right) \left(\frac{\text{Actual Flow}}{\text{Rated Flow}} \right)^2 \times 1.00 \frac{\text{Actual } \Delta P}{\text{inches of H}_2\text{O}}$$

If the pressure drop is too high, select the next larger silencer or contact the Aeroacoustic® Corp. or our sales representative for a special silencer having the required ΔP . Maximum allowable silencer ΔP is 2.0" H₂O. This is a structural requirement and must not be exceeded.

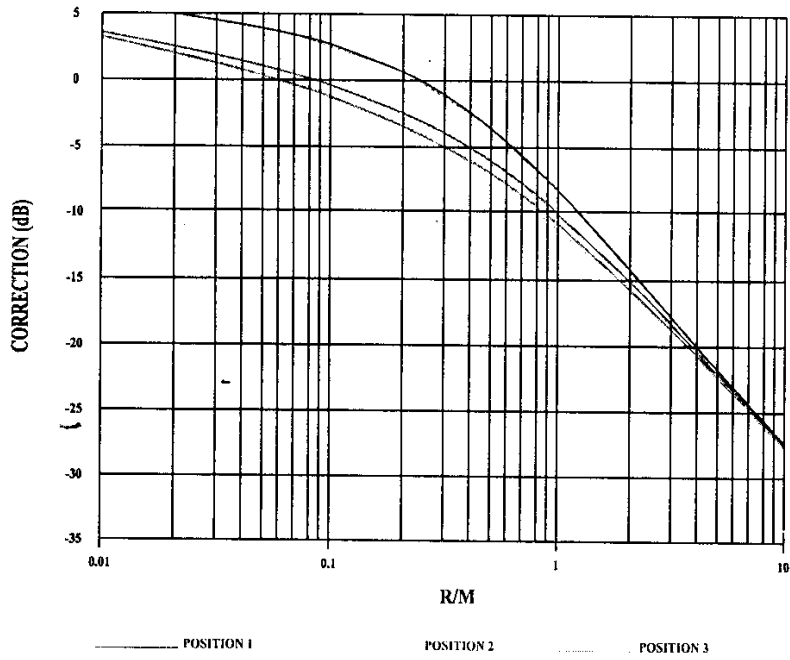
EXAMPLE

Single inlet fan with horizontal discharge, 40,000 CFM. Density is 0.075, maximum allowable ΔP is 1" of water. The fan is required to produce no more than 90dBA at 5' in front of silencer (R=5).

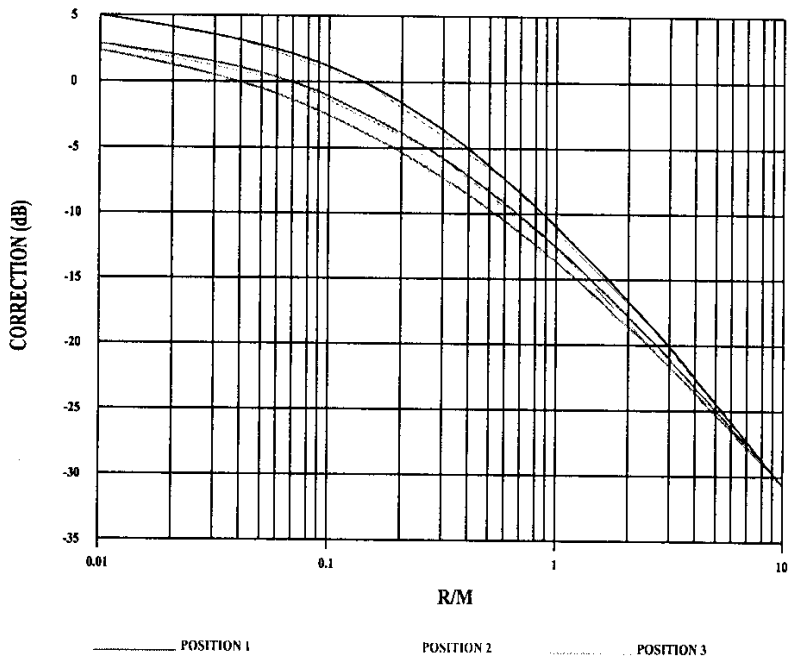
Octave band center frequency, KHz.	.063	.125	.250	.500	1	2	4	8	OA
1) Total fan LW, re 10-12 watts, dB (from fan MFG.)	130	125	130	125	120	115	110	105	
2) Add 10 dB for LW, re 10-13 watts, dB	140	135	140	135	130	125	120	115	
3) Correction for power split between inlet and outlet, dB	-3	-3	-3	-3	-3	-3	-3	-3	
4) Divergence $10 \log 24.75(-9)$, dB	-23	-23	-23	-23	-23	-23	-23	-23	
5) Directivity, dB	+4	+4	+4	+5	+5	+6	+6	+6	
6) 'A' correction, dB	-26	-16	-8	-3	0	+1	+1	-1	
7) end reflection	-7	-4	-1	-0	-0	-0	-0	-0	
8) SPLA —5' no silencer, dBA	96	101	114	115	113	109	105	98	120
9) NIL required of silencer, dB, $90-9=81$ dB	15	20	33	34	32	28	24	17	
10) NIL silencer model DF-42-4A db	9	17	28	38	42	34	22	17	
11) SPLA —5' with silencer, dBA	80	77	79	74	72	74	77	75	86

$$\Delta P = \left(\frac{.075}{.075} \right) \times \left(\frac{40,000}{42,000} \right)^2 \times 1.00 = 0.92 \text{ inches of water}$$

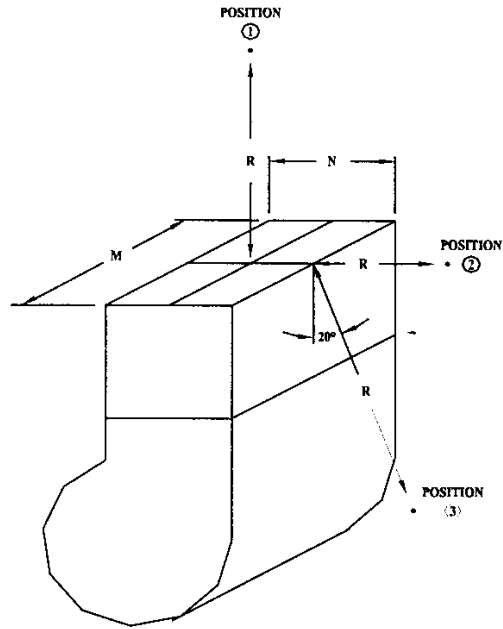
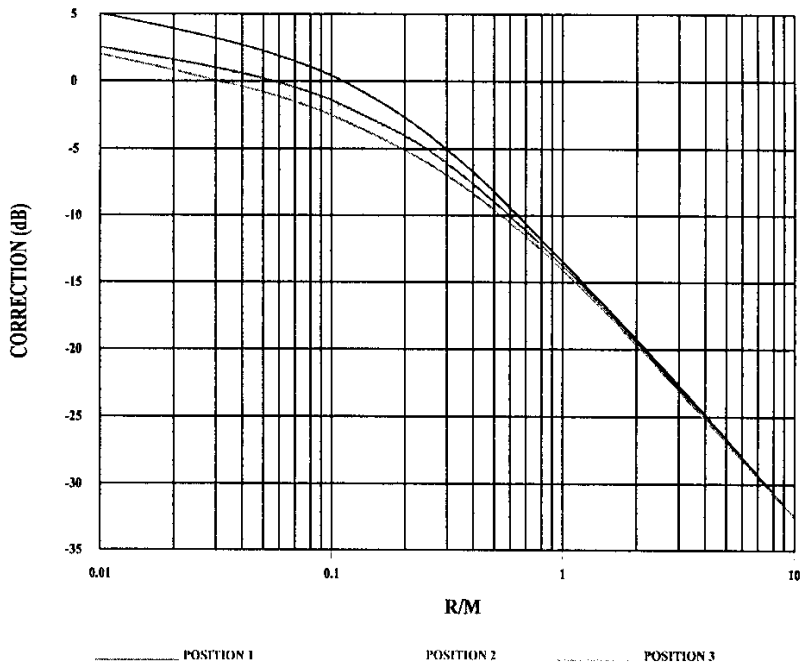
DIVERGENCE CORRECTION CURVE (M/N = 1)



DIVERGENCE CORRECTION CURVE (M/N = 2)



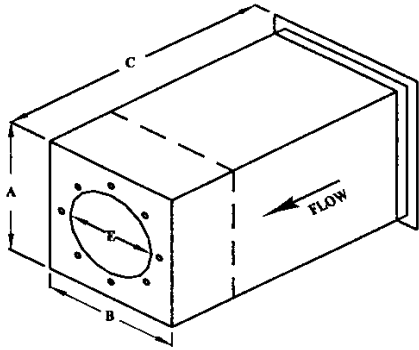
DIVERGENCE CORRECTION CURVE (M/N = 3)



THIS DIAGRAM SPECIFIES THE RELATIONSHIP OF M, N, R, POSITION 1, POSITION 2, POSITION 3, FOR THE CURVES TO BE VALID. M, N, R.

MODEL CI

FOR SINGLE INLET FANS WITHOUT INLET BOXES



The Aeroacoustic "Silentflow"® Model CI Fan Silencers are designed to bolt directly onto the fan inlet flange. The silencer includes a silencing element, followed by a plenum section, with one or two removable plates to allow access to the bolts, and 3/4" mesh galvanized inlet screen. When selecting a silencer, choose one having an inlet diameter "E" equal to or larger than that of your fan, and also with the proper acoustic performance. Each Silencer has a pressure drop of 1.00 of water at its rated flow. Actual pressure drop is calculated as described on page 3 of bulletin.

Model	A*	B*	C*	E*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, KHz							
								.063	.125	.25	.5	1	2	4	8
CI-2.5-1A	22	15	369	11	12	173	2,500	5	9	15	22	26	23	16	14
CI-2.5-2A	22	15	48	11	12	218	2,500	7	12	21	31	37	33	22	17
CI-2.5-3A	22	15	60	11	12	268	2,500	8	15	26	40	48	42	28	21
CI-2.5-4A	22	15	72	11	12	313	2,500	9	18	32	43	49	43	34	24
CI-2.5-5A	22	15	96	11	3/16	578	2,500	12	24	39	43	49	43	43	30
CI-2.5-1AA	24	19	36	15	12	210	2,500	7	10	13	21	26	23	17	14
CI-2.5-2AA	24	19	48	15	12	263	2,500	10	13	19	30	37	33	22	18
CI-2.5-3AA	24	19	60	15	12	323	2,500	12	17	24	39	48	42	28	21
CI-2.5-4AA	24	19	72	15	12	377	2,500	15	20	29	43	49	43	34	24
CI-2.5-5AA	24	19	96	15	3/16	689	2,500	20	28	39	43	49	43	43	31
CI-5-1A	22	30	36	17	12	281	5,000	5	9	15	22	26	23	16	14
CI-5-2A	22	30	48	17	12	354	5,000	7	12	21	31	37	33	22	17
CI-5-3A	22	30	60	17	12	437	5,000	8	15	26	40	48	42	28	21
CI-5-4A	22	30	72	17	12	510	5,000	9	18	32	43	49	43	34	24
CI-5-5A	22	30	92	17	3/16	908	5,000	12	24	39	43	49	43	43	30
CI-5-1AA	24	36	36	19	12	336	5,000	7	10	13	21	26	23	17	14
CI-5-2AA	24	36	48	19	12	421	5,000	9	13	19	30	37	33	22	18
CI-5-3AA	24	36	60	19	12	519	5,000	11	17	24	39	48	42	28	21
CI-5-4AA	24	36	72	19	12	604	5,000	14	20	30	43	49	43	34	24
CI-5-5AA	24	36	96	19	3/16	1070	5,000	18	27	39	43	49	43	43	31
CI-9-1A	34	31	36	26	12	381	9,000	6	9	15	20	23	20	15	11
CI-9-2A	34	31	48	26	12	481	9,000	7	11	20	28	32	28	20	14
CI-9-3A	34	31	60	26	12	595	9,000	8	14	25	36	42	36	24	17
CI-9-4A	34	31	72	26	12	694	9,000	9	16	31	43	49	43	29	20
CI-9-5A	34	31	96	26	3/16	1216	9,000	11	21	39	43	49	43	39	26
CI-9-1AA	36	36	36	30	12	438	9,000	7	10	15	20	23	20	14	11
CI-9-2AA	36	36	48	30	12	550	9,000	8	13	21	28	32	27	19	14
CI-9-3AA	36	36	60	30	12	680	9,000	9	16	26	36	41	35	23	17
CI-9-4AA	36	36	72	30	12	791	9,000	11	18	31	43	49	42	28	19
CI-9-5AA	36	36	96	30	3/16	1379	9,000	13	24	39	43	49	43	36	25
CI-12-1A	40	32	36	28	12	435	12,000	6	8	15	20	21	18	14	14
CI-12-2A	40	32	48	28	12	548	12,000	6	10	20	27	29	24	18	16
CI-12-3A	40	32	60	28	12	678	12,000	7	12	24	34	38	31	22	19
CI-12-4A	40	32	72	28	12	791	12,000	7	15	29	41	46	38	26	21
CI-12-5A	40	32	96	28	3/16	1378	12,000	9	19	38	43	49	43	34	26
CI-12-1AA	40	40	36	35	12	505	12,000	9	11	15	19	20	18	14	13
CI-12-2AA	40	40	48	35	12	631	12,000	10	13	20	25	28	23	17	15
CI-12-3AA	40	40	60	35	12	780	12,000	11	16	24	32	35	29	21	17
CI-12-4AA	40	40	72	35	12	906	12,000	12	18	29	39	42	35	24	19
CI-12-5AA	40	40	96	35	3/16	1567	12,000	14	23	38	43	49	43	30	24
CI-15-1A	45	45	36	40	12	632	15,000	5	9	15	22	26	23	16	14
CI-15-2A	45	45	48	40	12	795	15,000	7	12	20	31	37	33	22	17
CI-15-3A	45	45	60	40	12	988	15,000	8	15	26	40	48	42	28	21
CI-15-4A	45	45	72	40	12	1152	15,000	9	18	32	43	49	43	34	24
CI-15-5A	45	45	96	40	3/16	1948	15,000	12	24	39	43	49	43	43	30
CI-15-1AA	48	57	42	42	12	824	15,000	7	10	13	21	26	23	17	14
CI-15-2AA	48	57	54	42	12	1017	15,000	10	13	19	30	37	33	22	18
CI-15-3AA	48	57	66	42	12	1252	15,000	12	17	24	39	48	42	28	21
CI-15-4AA	48	57	78	42	12	1446	15,000	15	20	29	43	49	43	34	24
CI-15-5AA	48	57	102	42	3/16	2423	15,000	20	28	39	43	49	43	43	31

MODEL CI

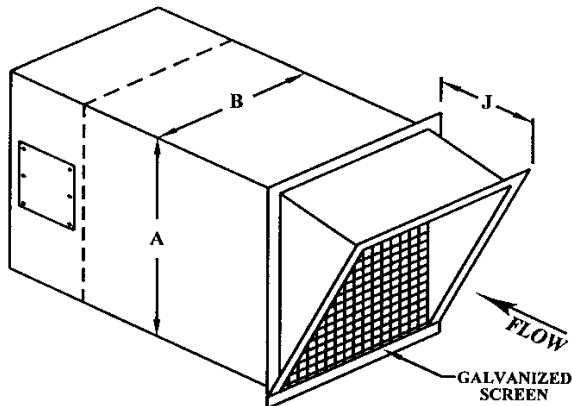
Model	A*	B*	C*	E*	SHELL		**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, KHz							
					GAGE	WEIGHT		.063	.125	.25	.5	1	2	4	8
CI-18-1A	44	46.5	36	40	12	629	18,000	6	9	15	20	23	20	15	11
CI-18-2A	44	46.5	48	40	12	792	18,000	7	11	20	28	32	28	20	14
CI-18-3A	44	46.5	60	40	12	983	18,000	8	14	26	36	42	36	24	17
CI-18-4A	44	46.5	72	40	12	1146	18,000	9	16	31	43	49	43	29	20
CI-18-5A	44	46.5	96	40	3/16	1942	18,000	11	22	39	43	49	43	39	26
CI-18-1AA	54	57	42	48	12	900	18,000	7	10	13	22	26	23	16	14
CI-18-2AA	54	57	54	48	12	1111	18,000	10	13	19	31	37	33	22	17
CI-18-3AA	54	57	66	48	12	1368	18,000	12	17	24	40	48	42	28	21
CI-18-4AA	54	57	78	48	12	1580	18,000	15	21	29	43	49	43	34	24
CI-18-5AA	54	57	102	48	3/16	2634	18,000	20	28	39	43	49	43	43	30
CI-21-1A	44	48	36	40	12	637	21,000	6	8	15	20	21	18	14	14
CI-21-2A	44	48	48	40	12	801	21,000	6	10	20	27	29	24	18	16
CI-21-3A	44	48	60	40	12	995	21,000	7	12	24	34	38	31	22	19
CI-21-4A	44	48	72	40	12	1159	21,000	7	15	29	41	46	38	26	21
CI-21-5A	44	48	96	40	3/16	1967	21,000	9	19	38	43	49	43	34	26
CI-21-1AA	48	60	42	42	12	841	21,000	9	11	15	19	20	18	14	13
CI-21-2AA	48	60	54	42	12	1038	21,000	10	13	20	25	28	24	17	15
CI-21-3AA	48	60	66	42	12	1276	21,000	11	16	24	32	35	29	21	17
CI-21-4AA	48	60	78	42	12	1474	21,000	12	18	29	39	42	35	24	19
CI-21-5AA	48	60	102	42	3/16	2475	21,000	14	23	38	43	49	43	30	24
CI-24-1A	48	48	36	42	12	718	24,000	6	8	15	20	21	18	14	14
CI-24-2A	48	48	48	42	12	893	24,000	6	10	20	27	29	24	18	16
CI-24-3A	48	48	60	42	12	1100	24,000	7	13	24	34	38	31	22	19
CI-24-4A	48	48	72	42	12	1275	24,000	7	15	29	41	46	38	26	21
CI-24-5A	48	48	96	42	3/16	2155	24,000	9	19	38	43	49	43	34	26
CI-24-1AA	54	60	42	48	12	918	24,000	9	11	15	19	20	18	14	13
CI-24-2AA	54	60	54	48	12	1133	24,000	10	13	20	25	28	24	17	15
CI-24-3AA	54	60	66	48	12	1393	24,000	11	16	24	32	35	29	21	17
CI-24-4AA	54	60	78	48	12	1609	24,000	12	18	29	39	42	35	24	19
CI-24-5AA	54	60	102	48	3/16	2687	24,000	14	23	38	43	49	43	30	24
CI-27-1A	60	48	36	42	12	851	27,000	6	8	15	20	21	18	14	14
CI-27-2A	60	48	48	42	12	1058	27,000	6	10	20	27	29	24	18	16
CI-27-3A	60	48	60	42	12	1306	27,000	7	12	24	34	38	31	22	19
CI-27-4A	60	48	72	42	12	1513	27,000	7	15	29	41	46	38	26	21
CI-27-5A	60	48	96	42	3/16	2535	27,000	9	19	38	43	49	43	34	26
CI-27-1AA	60	60	42	54	12	1042	27,000	9	11	15	19	20	18	14	13
CI-27-2AA	60	60	54	54	12	1275	27,000	10	13	20	25	28	23	17	15
CI-27-3AA	60	60	66	54	12	1558	27,000	11	16	24	32	35	29	21	17
CI-27-4AA	60	60	78	54	12	1791	27,000	12	18	29	39	42	35	24	19
CI-27-5AA	60	60	102	54	3/16	2980	27,000	14	23	38	43	49	43	30	24
CI-30-1A	54	54	42	48	12	836	30,000	5	8	13	17	18	16	13	12
CI-30-2A	54	54	54	48	12	1036	30,000	6	10	18	23	26	21	16	14
CI-30-3A	54	54	66	48	12	1275	30,000	7	13	22	30	33	27	20	16
CI-30-4A	54	54	78	48	12	1476	30,000	8	15	27	37	41	32	23	18
CI-30-5A	54	54	102	48	3/16	2484	30,000	9	20	36	43	49	43	29	23
CI-30-1AA	66	60	48	54	12	1181	30,000	9	11	15	19	20	18	14	13
CI-30-2AA	66	60	60	54	12	1463	30,000	10	14	20	25	28	23	17	15
CI-30-3AA	66	60	72	54	12	1800	30,000	11	16	24	32	35	29	21	17
CI-30-4AA	66	60	84	54	12	2081	30,000	12	18	29	39	42	35	24	19
CI-30-5AA	66	60	108	54	3/16	3409	30,000	14	23	38	43	49	43	30	24
CI-36-1A	60	57	48	51	12	987	36,000	6	9	13	17	18	15	13	13
CI-36-2A	60	57	60	51	12	1211	36,000	7	11	18	23	25	21	16	15
CI-36-3A	60	57	72	51	12	1480	36,000	7	14	23	30	33	26	20	17
CI-36-4A	60	57	84	51	12	1704	36,000	8	17	28	37	40	31	23	19
CI-36-5A	60	57	108	51	3/16	2850	36,000	10	22	38	43	49	42	29	23
CI-36-1AA	60	66	48	54	12	1098	36,000	7	10	13	16	17	15	13	14
CI-36-2AA	60	66	60	54	12	1341	36,000	8	13	19	23	24	20	16	15
CI-36-3AA	60	66	72	54	12	1638	36,000	10	16	24	31	32	25	19	17
CI-36-4AA	60	66	84	54	12	1880	36,000	11	19	29	38	39	30	22	19
CI-36-5AA	60	66	108	54	3/16	3129	36,000	13	25	39	43	49	41	28	23

* - DIMENSIONS WITHOUT FLANGES, ADD 4" TO 6" TO ALLOW FOR FLANGES
 ** - MAXIMUM ALLOWABLE FLOW IS 10% HIGHER THAN RATED FLOW.

MODEL CI

Model	A*	B*	C*	E*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, KHz							
								.063	.125	.25	.5	1	2	4	8
CI-42-1A	60	60	54	54	12	1117	42,000	5	7	15	20	21	18	15	13
CI-42-2A	60	60	66	54	12	1369	42,000	6	9	19	27	30	25	19	16
CI-42-3A	60	60	78	54	12	1671	42,000	6	11	23	34	38	32	23	18
CI-42-4A	60	60	90	54	12	1924	42,000	7	14	28	41	47	39	27	21
CI-42-5A	60	60	114	54	3/16	3182	42,000	8	18	36	43	49	43	35	25
CI-42-1AA	66	66	54	60	12	1297	42,000	7	10	13	16	17	15	13	14
CI-42-2AA	66	66	66	60	12	1590	42,000	8	13	19	23	24	20	16	15
CI-42-3AA	66	66	78	60	12	1942	42,000	10	16	24	31	32	25	19	17
CI-42-4AA	66	66	90	60	12	2235	42,000	11	19	29	38	39	30	22	19
CI-42-5AA	66	66	114	60	3/16	3664	42,000	13	25	39	43	49	41	28	23
CI-48-1A	57	57	48	51	12	934	48,000	4	7	11	15	16	13	11	11
CI-48-2A	57	57	60	51	12	1147	48,000	5	9	15	21	23	17	14	13
CI-48-3A	57	57	72	51	12	1400	48,000	6	12	20	27	29	22	16	15
CI-48-4A	57	57	84	51	12	1612	48,000	7	14	24	33	36	26	19	16
CI-48-5A	57	57	108	51	3/16	2712	48,000	9	18	33	43	49	35	24	20
CI-48-1AA	60	66	54	54	12	1131	48,000	8	8	11	14	15	13	12	12
CI-48-2AA	60	66	66	54	12	1371	48,000	11	11	16	20	22	18	15	14
CI-48-3AA	60	66	78	54	12	1662	48,000	14	14	21	27	28	22	17	16
CI-48-4AA	60	66	90	54	12	1902	48,000	17	17	26	33	35	27	20	17
CI-48-5AA	60	66	114	54	3/16	3176	48,000	22	22	36	43	48	36	25	21
CI-54-1A	66	66	54	60	3/16	1815	54,000	5	8	14	18	20	17	14	13
CI-54-2A	66	66	66	60	3/16	2203	54,000	6	10	19	25	28	23	17	15
CI-54-3A	66	66	78	60	3/16	2648	54,000	7	12	23	32	36	29	21	17
CI-54-4A	66	66	90	60	3/16	3035	54,000	7	15	28	39	43	35	25	19
CI-54-5A	66	66	114	60	3/16	3868	54,000	9	20	37	43	49	43	32	24
CI-54-1AA	66	66	54	60	3/16	1758	54,000	6	9	11	14	15	13	12	12
CI-54-2AA	66	66	66	60	3/16	2118	54,000	7	11	16	20	22	18	15	14
CI-54-3AA	66	66	78	60	3/16	2534	54,000	8	14	21	27	28	22	17	16
CI-54-4AA	66	66	90	60	3/16	2895	54,000	9	17	26	33	35	26	20	17
CI-54-5AA	66	66	114	60	3/16	3672	54,000	12	23	36	43	48	35	25	21
CI-60-1A	66	72	60	60	3/16	2007	60,000	5	8	13	17	18	15	13	12
CI-60-2A	66	72	72	60	3/16	2411	60,000	6	11	18	24	25	21	16	14
CI-60-3A	66	72	84	60	3/16	2877	60,000	7	13	22	30	33	26	19	16
CI-60-4A	66	72	96	60	3/16	3282	60,000	8	16	27	37	40	32	23	18
CI-60-5A	66	72	120	60	3/16	4152	60,000	9	21	37	43	49	42	29	22
CI-60-1AA	72	84	60	66	3/16	2378	60,000	7	10	13	16	17	15	14	14
CI-60-2AA	72	84	72	66	3/16	2848	60,000	8	13	19	23	25	20	17	16
CI-60-3AA	72	84	84	66	3/16	3399	60,000	9	16	24	31	32	25	20	17
CI-60-4AA	72	84	96	66	3/16	3869	60,000	10	19	29	38	39	31	22	19
CI-60-5AA	72	84	120	66	3/16	4889	60,000	12	24	39	43	49	41	28	23
CI-80-1A	72	72	60	66	3/16	2097	80,000	4	7	11	15	17	13	11	11
CI-80-2A	72	72	72	66	3/16	2518	80,000	5	9	15	21	23	17	14	13
CI-80-3A	72	72	84	66	3/16	3002	80,000	6	11	19	27	30	21	16	15
CI-80-4A	72	72	96	66	3/16	3423	80,000	6	13	23	33	36	26	19	16
CI-80-5A	72	72	120	66	3/16	4328	80,000	8	17	32	43	49	34	24	19
CI-80-1AA	84	88	60	78	3/16	2699	80,000	6	8	11	14	15	13	12	12
CI-80-2AA	84	88	72	78	3/16	3226	80,000	7	11	16	20	22	18	15	14
CI-80-3AA	84	88	84	78	3/16	3849	80,000	8	14	21	27	28	22	17	16
CI-80-4AA	84	88	96	78	3/16	4376	80,000	9	17	26	33	35	27	20	17
CI-80-5AA	84	88	120	78	3/16	5526	80,000	12	22	36	43	48	36	25	21
CI-100-1A	84	85	72	78	3/16	3242	100,000	5	10	17	24	26	21	16	14
CI-100-2A	84	85	84	78	3/16	3882	100,000	6	12	22	30	33	27	19	16
CI-100-3A	84	85	96	78	3/16	4430	100,000	7	14	26	37	41	32	22	18
CI-100-4A	84	85	108	78	3/16	5070	100,000	8	17	31	43	49	37	26	20
CI-100-5A	84	85	132	78	3/16	6258	100,000	9	21	39	43	49	43	32	24
CI-100-1AA	90	88	72	82	3/16	3387	100,000	7	11	16	20	21	18	15	14
CI-100-2AA	90	88	84	82	3/16	4042	100,000	8	14	21	27	28	22	17	16
CI-100-3AA	90	88	96	82	3/16	4595	100,000	9	17	26	33	35	26	20	17
CI-100-4AA	90	88	108	82	3/16	5249	100,000	11	20	31	40	41	31	23	19
CI-100-5AA	90	88	132	82	3/16	6457	100,000	13	26	39	43	49	40	28	23

MODEL CIH Rainhoods For Horizontal CI Silencers



The Aeroacoustic® Corporation has designed rainhoods which will provide uniform flow at the silencer face thereby resulting in a minimum increase in pressure drop when used with an Aeroacoustic fan inlet silencer. CIH model numbers correspond to CI silencer model number numbers.

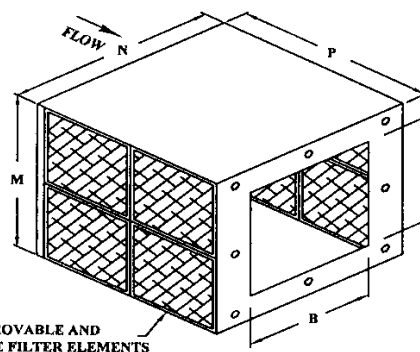
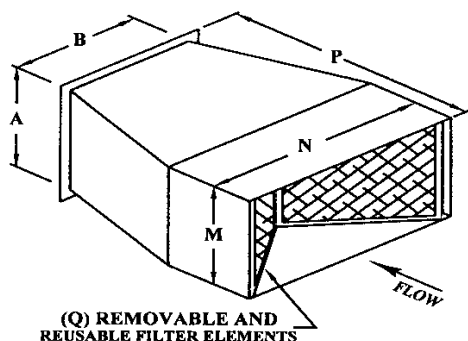
Rainhoods for horizontal installation will add zero ΔP

Dimensions without flanges add 4" to 6" to allow for flanges

INSIDE DIMENSIONS, RAINHOODS FOR HORIZONTAL CI SERIES

MODEL	A	B	J	SHELL GAGE	WEIGHT
CIH-2.5 -1A, 2A, 3A, 4A, 5A	22	15	18	12	53
CIH-2.5-1AA, 2AA, 3AA, 4AA, 5AA	24	19	19	12	67
CIH-5-1A, 2A, 3A, 4A, 5A	22	30	18	12	92
CIH-5-1AA, 2AA, 3AA, 4AA, 5AA	24	36	19	12	113
CIH-9-1A, 2A, 3A, 4A, 5A	34	31	28	12	127
CIH-9-1AA, 2AA, 3AA, 4AA, 5AA	36	36	29	12	150
CIH-12-1A, 2A, 3A, 4A, 5A	40	32	32	12	148
CIH-12-1AA, 2AA, 3AA, 4AA, 5AA	40	40	32	12	178
CIH-15-1A, 2A, 3A, 4A, 5A	45	45	36	12	216
CIH-15-1AA, 2AA, 3AA, 4AA, 5AA	48	57	39	12	279
CIH-18-1A, 2A, 3A, 4A, 5A	44	46.5	36	12	218
CIH-18-1AA, 2AA, 3AA, 4AA, 5AA	54	57	44	12	306
CIH-21-1A, 2A, 3A, 4A, 5A	44	48	36	12	224
CIH-21-1AA, 2AA, 3AA, 4AA, 5AA	48	60	39	12	292
CIH-24-1A, 2A, 3A, 4A, 5A	48	48	39	12	240
CIH-24-1AA, 2AA, 3AA, 4AA, 5AA	54	60	44	12	321
CIH-27-1A, 2A, 3A, 4A, 5A	60	48	49	12	287
CIH-27-1AA, 2AA, 3AA, 4AA, 5AA	60	60	49	12	349
CIH-30-1A, 2A, 3A, 4A, 5A	54	54	44	12	292
CIH-30-1AA, 2AA, 3AA, 4AA, 5AA	66	60	53	12	378
CIH-36-1A, 2A, 3A, 4A, 5A	60	57	49	12	334
CIH-36-1AA, 2AA, 3AA, 4AA, 5AA	60	66	49	12	380
CIH-42-1A, 2A, 3A, 4A, 5A	60	60	49	12	349
CIH-42-1AA, 2AA, 3AA, 4AA, 5AA	66	66	53	12	411
CIH-48-1A, 2A, 3A, 4A, 5A	57	57	46	12	320
CIH-48-1AA, 2AA, 3AA, 4AA, 5AA	60	66	49	12	380
CIH-54-1A, 2A, 3A, 4A, 5A	66	66	53	12	411
CIH-54-1AA, 2AA, 3AA, 4AA, 5AA	66	66	53	12	411
CIH-60-1A, 2A, 3A, 4A, 5A	66	72	53	12	445
CIH-60-1AA, 2AA, 3AA, 4AA, 5AA	72	84	58	12	550
CIH-80-1A, 2A, 3A, 4A, 5A	72	72	58	12	478
CIH-80-1AA, 2AA, 3AA, 4AA, 5AA	84	88	68	12	654
CIH-100-1A, 2A, 3A, 4A, 5A	84	85	68	12	634
CIH-100-1AA, 2AA, 3AA, 4AA, 5AA	90	88	73	12	694

MODEL CIF Filters For CI Silencers

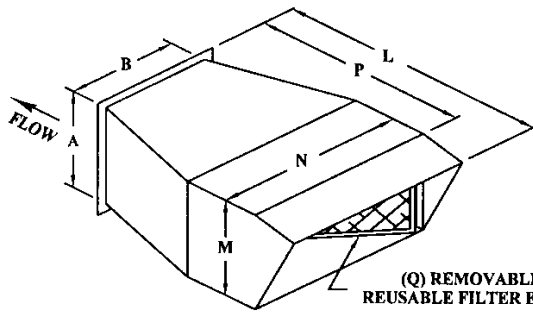


Aeroacoustic "Silentflow"® Model CI fan inlet silencers can be supplied with a matching inlet filter, as detailed below. When clean, these filters will add a ΔP of .15" H₂O to the silencer at the silencer rated flow. Filter elements are removable and can be reused after cleaning. These filters are a cleanable viscous type of all galvanized construction and has a filtering efficiency of 93% at rated flow on 10 micron particles. CIF model numbers correspond to CI silencer model numbers.

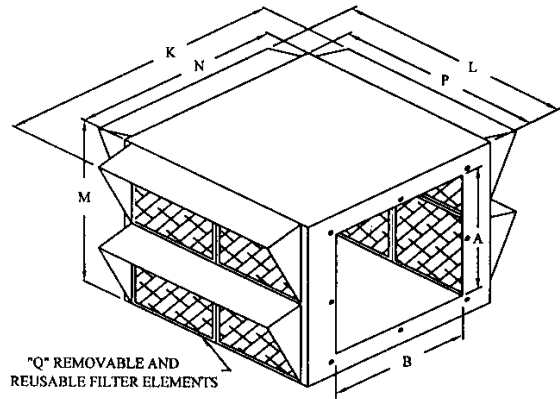
DIMENSIONS IN INCHES

MODEL	A	B	M	N	P	Q	WEIGHT
CIF-2.5-1A, 2A, 3A, 4A, 5A	22	15	24	41	41	2	254
CIF-2.5-1AA, 2AA, 3AA, 4AA, 5AA	24	19	24	41	41	2	259
CIF-5-1A, 2A, 3A, 4A, 5A	22	30	24	61.5	45	3	365
CIF-5-1AA, 2AA, 3AA, 4AA, 5AA	24	36	24	61.5	41	3	349
CIF-9-1A, 2A, 3A, 4A, 5A	34	31	48	61.5	45	6	501
CIF-9-1AA, 2AA, 3AA, 4AA, 5AA	36	36	48	61.5	41	6	477
CIF-12-1A, 2A, 3A, 4A, 5A	40	32	48	82	60	8	738
CIF-12-1AA, 2AA, 3AA, 4AA, 5AA	40	40	48	82	54	8	692
CIF-15-1A, 2A, 3A, 4A, 5A	45	45	48	82	51	8	674
CIF-15-1AA, 2AA, 3AA, 4AA, 5AA	48	57	48	82	41	8	598
CIF-18-1A, 2A, 3A, 4A, 5A	44	46.5	72	61.5	45	9	648
CIF-18-1AA, 2AA, 3AA, 4AA, 5AA	54	57	72	61.5	41	9	630
CIF-21-1A, 2A, 3A, 4A, 5A	44	48	72	82	48	12	794
CIF-21-1AA, 2AA, 3AA, 4AA, 5AA	48	60	72	82	41	12	735
CIF-24-1A, 2A, 3A, 4A, 5A	48	48	82	96	60	16	1090
CIF-24-1AA, 2AA, 3AA, 4AA, 5AA	54	60	82	96	52	16	1009
CIF-27-1A, 2A, 3A, 4A, 5A	60	48	82	96	60	16	1101
CIF-27-1AA, 2AA, 3AA, 4AA, 5AA	60	60	82	96	50	16	990
CIF-30-1A, 2A, 3A, 4A, 5A	54	54	82	96	50	16	979
CIF-30-1AA, 2AA, 3AA, 4AA, 5AA	66	60	82	96	50	16	995
CIF-36-1A, 2A, 3A, 4A, 5A	60	57	76	76	54	21	1022
CIF-36-1AA, 2AA, 3AA, 4AA, 5AA	60	66	76	100	54	24	1169
CIF-42-1A, 2A, 3A, 4A, 5A	60	60	76	76	78	27	1186
CIF-42-1AA, 2AA, 3AA, 4AA, 5AA	66	66	76	100	54	24	1174
CIF-48-1A, 2A, 3A, 4A, 5A	57	57	76	76	78	27	1369
CIF-48-1AA, 2AA, 3AA, 4AA, 5AA	60	66	100	100	54	32	1390
CIF-54-1A, 2A, 3A, 4A, 5A	66	66	76	100	79	30	1704
CIF-54-1AA, 2AA, 3AA, 4AA, 5AA	66	66	100	100	55	32	1537
CIF-60-1A, 2A, 3A, 4A, 5A	66	72	100	100	55	32	1548
CIF-60-1AA, 2AA, 3AA, 4AA, 5AA	72	84	100	100	55	32	1581
CIF-80-1A, 2A, 3A, 4A, 5A	72	72	100	100	103	48	2484
CIF-80-1AA, 2AA, 3AA, 4AA, 5AA	84	88	124	124	55	45	2007
CIF-100-1A, 2A, 3A, 4A, 5A	84	85	124	124	79	55	2576
CIF-100-1AA, 2AA, 3AA, 4AA, 5AA	90	88	124	124	79	55	2592

MODEL CFH Filter/Rainhoods For CI Silencers



(Q) REMOVABLE AND REUSABLE FILTER ELEMENTS

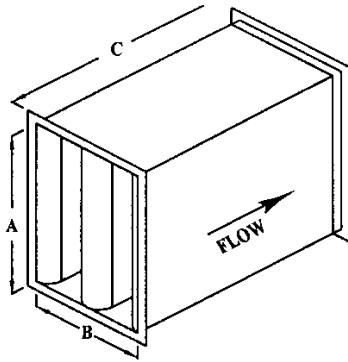


Q REMOVABLE AND REUSABLE FILTER ELEMENTS

The Aeroacoustic "Silentflow"® Model CI can be supplied with a filter/rainhood assembly. These filter/rainhood assemblies will add a ΔP of only .15" H₂O to the silencer. Filter elements are removable and can be reused after cleaning. The filter has a filtering efficiency of 93% at the rated flow on 10 micron particles. CFH model numbers correspond to CI silencer model numbers.

MODEL	DIMENSIONS IN INCHES								WEIGHT
	A	B	K	L	M	N	P	Q	
CFH-2.5 -1A, 2A, 3A, 4A, 5A	22	15		60	24	41	41	2	317
CFH-2.5-1AA, 2AA, 3AA, 4AA, 5AA	24	19		60	24	41	41	2	324
CFH-5-1A, 2A, 3A, 4A, 5A	22	30		64	24	61.5	45	3	457
CFH-5-1AA, 2AA, 3AA, 4AA, 5AA	24	36		60	24	61.5	41	3	437
CFH-9-1A, 2A, 3A, 4A, 5A	34	31		64	48	61.5	45	6	626
CFH-9-1AA, 2AA, 3AA, 4AA, 5AA	36	36		60	48	61.5	41	6	597
CFH-12-1A, 2A, 3A, 4A, 5A	40	32		79	48	82	60	8	923
CFH-12-1AA, 2AA, 3AA, 4AA, 5AA	40	40		63	48	82	54	8	865
CFH-15-1A, 2A, 3A, 4A, 5A	45	45		70	48	82	51	8	843
CFH-15-1AA, 2AA, 3AA, 4AA, 5AA	48	57		60	48	82	41	8	748
CFH-18-1A, 2A, 3A, 4A, 5A	44	46.5		64	72	61.5	45	9	810
CFH-18-1AA, 2AA, 3AA, 4AA, 5AA	54	57		60	72	61.5	41	9	788
CFH-21-1A, 2A, 3A, 4A, 5A	44	48		67	72	82	48	12	993
CFH-21-1AA, 2AA, 3AA, 4AA, 5AA	48	60		60	72	82	41	12	919
CFH-24-1A, 2A, 3A, 4A, 5A	48	48		82	82	96	60	16	1363
CFH-24-1AA, 2AA, 3AA, 4AA, 5AA	54	60		74	82	96	52	16	1261
CFH-27-1A, 2A, 3A, 4A, 5A	60	48		82	82	96	60	16	1376
CFH-27-1AA, 2AA, 3AA, 4AA, 5AA	60	60		72	82	96	50	16	1237
CFH-30-1A, 2A, 3A, 4A, 5A	54	54		72	82	96	50	16	1223
CFH-30-1AA, 2AA, 3AA, 4AA, 5AA	66	60		72	82	96	50	16	1244
CFH-36-1A, 2A, 3A, 4A, 5A	60	57	144	73	76	76	54	21	1277
CFH-36-1AA, 2AA, 3AA, 4AA, 5AA	60	66	138	73	76	100	54	24	1461
CFH-42-1A, 2A, 3A, 4A, 5A	60	60	114	93	76	76	78	27	1483
CFH-42-1AA, 2AA, 3AA, 4AA, 5AA	66	66	138	71	76	100	54	24	1468
CFH-48-1A, 2A, 3A, 4A, 5A	57	57	114	95	76	76	78	27	1711
CFH-48-1AA, 2AA, 3AA, 4AA, 5AA	60	66	138	71	100	100	54	32	1737
CFH-54-1A, 2A, 3A, 4A, 5A	66	66	138	95	76	100	79	30	2130
CFH-54-1AA, 2AA, 3AA, 4AA, 5AA	66	66	138	71	100	100	55	32	1922
CFH-60-1A, 2A, 3A, 4A, 5A	66	72	138	71	100	100	55	32	1936
CFH-60-1AA, 2AA, 3AA, 4AA, 5AA	72	84	138	71	100	100	55	32	1977
CFH-80-1A, 2A, 3A, 4A, 5A	72	72	138	119	100	100	103	48	3105
CFH-80-1AA, 2AA, 3AA, 4AA, 5AA	84	88	162	71	124	124	55	45	2509
CFH-100-1A, 2A, 3A, 4A, 5A	84	85	162	95	124	124	79	55	3220
CFH-100-1AA, 2AA, 3AA, 4AA, 5AA	90	88	162	95	124	124	79	55	3240

MODEL DF Fan Discharge Silencers



We have designed a series of fan discharge silencers for use when the fan inlet is connected to the process, and the discharge to the atmosphere. These are shown in the illustration. The required silencers are generally larger than the fan discharge connection, and a transition from the fan discharge to the silencer are needed. Both inlet and discharge transitions are available on request. The pressure drop at the standard flow is 1.0 inches of water. This pressure drop has been corrected for the pressure recovery from the fan discharge velocity. A 50% diffusion efficiency is assumed for the transition from the fan to the silencer. "Silentflow"® Model DF silencers can be supplied at extra cost with internals removable for cleaning. This is recommended when the silencer is used with dirty gases. Note that the transitions from the fan discharge to the silencer inlet must expand at an angle not exceeding 15 degrees on the fastest expanding side. Also note that "B" dimensions must be parallel to the fan shaft for good aerodynamic performance.

Model	A*	B*	C*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, kHz							
							.063	.125	.25	.5	1	2	4	8
DF-2.5-1A	24	15	21	12	138	2,500	4	7	12	18	23	22	16	14
DF-2.5-2A	24	15	33	12	194	2,500	5	9	17	27	33	33	22	18
DF-2.5-3A	24	15	45	12	244	2,500	7	12	22	35	44	43	29	21
DF-2.5-4A	24	15	57	12	299	2,500	8	15	27	43	49	43	35	25
DF-2.5-5A	24	15	81	12	404	2,500	10	20	38	43	49	43	43	32
DF-2.5-1AA	24	19	21	12	197	2,500	6	8	11	17	23	22	16	14
DF-2.5-2AA	24	19	33	12	261	2,500	8	12	16	26	33	33	22	18
DF-2.5-3AA	24	19	45	12	318	2,500	11	15	21	34	44	43	29	21
DF-2.5-4AA	24	19	57	12	381	2,500	13	18	26	42	49	43	35	25
DF-2.5-5AA	24	19	81	12	502	2,500	18	25	36	43	49	43	43	32
DF-5-1A	24	18	20	12	146	5,000	3	5	8	12	14	13	9	8
DF-5-2A	24	18	32	12	205	5,000	4	7	12	18	21	18	12	10
DF-5-3A	24	18	44	12	258	5,000	5	9	16	23	27	22	14	11
DF-5-4A	24	18	56	12	317	5,000	5	10	19	29	34	27	17	13
DF-5-5A	24	18	80	12	430	5,000	7	14	26	40	47	37	22	16
DF-5-1AA	36	20	20	12	193	5,000	7	9	12	16	18	17	12	9
DF-5-2AA	36	20	32	12	275	5,000	8	12	17	22	25	23	16	12
DF-5-3AA	36	20	44	12	346	5,000	9	14	21	28	33	29	19	14
DF-5-4AA	36	20	56	12	427	5,000	10	16	25	35	40	36	23	16
DF-5-5AA	36	20	80	12	580	5,000	12	20	33	43	49	43	30	21
DF-9-1A	28	20	32	12	231	9,000	4	6	11	15	16	13	9	8
DF-9-2A	28	20	44	12	293	9,000	4	8	14	20	20	16	11	9
DF-9-3A	28	20	56	12	360	9,000	5	9	18	25	25	19	12	10
DF-9-4A	28	20	68	12	421	9,000	5	11	21	29	30	22	14	11
DF-9-5A	28	20	92	12	550	9,000	6	14	27	38	39	29	18	14
DF-9-1AA	42	22	32	12	311	9,000	6	9	13	17	20	18	13	11
DF-9-2AA	42	22	44	12	392	9,000	7	11	18	24	26	23	15	12
DF-9-3AA	42	22	56	12	485	9,000	8	14	22	30	33	28	18	14
DF-9-4AA	42	22	68	12	566	9,000	9	16	27	36	40	32	21	16
DF-9-5AA	42	22	92	12	741	9,000	11	21	36	43	49	42	27	20
DF-12-1A	30	36	36	12	415	12,000	4	8	13	20	24	19	13	10
DF-12-2A	30	36	48	12	526	12,000	5	9	17	25	30	24	15	12
DF-12-3A	30	36	60	12	623	12,000	6	11	21	31	37	29	18	14
DF-12-4A	30	36	72	12	733	12,000	6	13	24	36	43	34	21	15
DF-12-5A	30	36	96	12	941	12,000	8	16	32	43	49	43	26	18
DF-12-1AA	30	44	36	12	476	12,000	6	10	15	19	22	19	14	11
DF-12-2AA	30	44	48	12	600	12,000	7	12	19	26	29	24	16	13
DF-12-3AA	30	44	60	12	707	12,000	8	15	24	32	35	29	19	15
DF-12-4AA	30	44	72	12	831	12,000	9	17	29	38	42	34	22	17
DF-12-5AA	30	44	96	12	1062	12,000	11	22	38	43	49	43	28	21
DF-15-1A	36	36	36	12	455	15,000	4	7	13	20	24	19	13	10
DF-15-2A	36	36	48	12	578	15,000	5	9	17	25	30	24	15	12
DF-15-3A	36	36	60	12	685	15,000	6	11	21	31	37	29	18	14
DF-15-4A	36	36	72	12	808	15,000	6	13	24	36	43	34	21	15
DF-15-5A	36	36	96	12	1038	15,000	8	16	31	43	49	43	26	18
DF-15-1AA	36	44	36	12	518	15,000	6	10	15	19	22	19	14	11
DF-15-2AA	36	44	48	12	656	15,000	7	12	19	26	29	24	16	13
DF-15-3AA	36	44	60	12	773	15,000	8	15	24	32	35	29	19	15
DF-15-4AA	36	44	72	12	911	15,000	9	17	28	38	42	34	22	17
DF-15-5AA	36	44	96	12	1165	15,000	11	22	38	43	49	43	28	21

*DIMENSIONS WITHOUT FLANGES, ADD 4" TO 6" TO ALLOW FOR FLANGES
 ** MAXIMUM ALLOWABLE FLOW IS 10% HIGHER THAN RATED FLOW.

MODEL DF

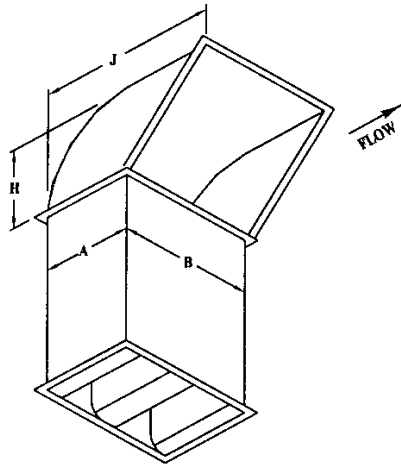
Model	A*	B*	C*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, KHz							
							.063	.125	.25	.5	1	2	4	8
DF-18-1A	42	36	36	12	495	18,000	4	7	13	20	24	20	13	10
DF-18-2A	42	36	48	12	630	18,000	5	9	17	25	30	24	15	12
DF-18-3A	42	36	60	12	747	18,000	6	11	21	31	37	29	18	14
DF-18-4A	42	36	72	12	883	18,000	6	13	24	36	43	34	21	15
DF-18-5A	42	36	96	12	1135	18,000	8	16	31	43	49	43	26	18
DF-18-1AA	44	44	36	12	576	18,000	6	10	15	19	22	19	14	11
DF-18-2AA	44	44	48	12	731	18,000	7	12	19	26	29	24	16	13
DF-18-3AA	44	44	60	12	861	18,000	8	15	24	32	35	29	19	15
DF-18-4AA	44	44	72	12	1016	18,000	9	17	29	38	42	34	22	17
DF-18-5AA	44	44	96	12	1302	18,000	11	22	38	43	49	43	28	21
DF-21-1A	48	36	36	12	534	21,000	4	7	13	20	24	20	13	10
DF-21-2A	48	36	48	12	683	21,000	5	9	17	25	30	24	15	12
DF-21-3A	48	36	60	12	809	21,000	5	11	21	31	37	29	18	14
DF-21-4A	48	36	72	12	957	21,000	6	13	24	36	43	34	21	15
DF-21-5A	48	36	96	12	1232	21,000	8	16	31	43	49	43	26	18
DF-21-1AA	48	44	36	12	604	21,000	6	10	15	19	22	19	14	11
DF-21-2AA	48	44	48	12	769	21,000	7	12	19	26	29	24	16	13
DF-21-3AA	48	44	60	12	905	21,000	8	15	24	32	35	29	19	15
DF-21-4AA	48	44	72	12	1069	21,000	9	18	28	38	42	34	22	17
DF-21-5AA	48	44	96	12	1370	21,000	11	22	38	43	49	43	28	21
DF-24-1A	42	40	36	12	614	24,000	4	7	12	17	17	14	9	8
DF-24-2A	42	40	48	12	767	24,000	5	8	16	22	22	17	11	9
DF-24-3A	42	40	60	12	901	24,000	5	10	19	26	27	20	13	11
DF-24-4A	42	40	72	12	1053	24,000	6	11	22	31	31	23	15	12
DF-24-5A	42	40	96	12	1340	24,000	6	14	28	40	41	30	18	14
DF-24-1AA	42	54	36	12	814	24,000	5	9	16	22	26	23	16	12
DF-24-2AA	42	54	48	12	1022	24,000	6	11	20	29	33	29	19	14
DF-24-3AA	42	54	60	12	1199	24,000	7	13	24	35	41	35	23	16
DF-24-4AA	42	54	72	12	1407	24,000	7	15	28	42	48	41	27	18
DF-24-5AA	42	54	96	12	1791	24,000	9	19	37	43	49	43	34	23
DF-27-1A	48	40	36	12	673	27,000	4	7	12	17	17	14	9	8
DF-27-2A	48	40	48	12	841	27,000	5	8	16	22	22	17	11	9
DF-27-3A	48	40	60	12	988	27,000	5	10	19	26	27	20	13	11
DF-27-4A	48	40	72	12	1157	27,000	6	11	22	31	31	23	15	12
DF-27-5A	48	40	96	12	1472	27,000	6	14	28	40	41	30	18	14
DF-27-1AA	54	46	36	12	679	27,000	5	9	14	19	21	17	12	10
DF-27-2AA	54	46	48	12	867	27,000	6	11	18	25	27	21	14	12
DF-27-3AA	54	46	60	12	1022	27,000	7	13	22	30	33	25	17	13
DF-27-4AA	54	46	72	12	1210	27,000	8	15	25	36	39	29	19	15
DF-27-5AA	54	46	96	12	1553	27,000	10	19	33	43	49	38	24	18
DF-30-1A	48	40	36	12	556	30,000	4	7	12	17	17	14	9	8
DF-30-2A	48	40	48	12	709	30,000	4	8	16	21	22	17	11	9
DF-30-3A	48	40	60	12	841	30,000	5	10	19	26	27	20	13	11
DF-30-4A	48	40	72	12	994	30,000	5	11	22	31	31	24	15	12
DF-30-5A	48	40	96	12	1279	30,000	6	14	28	40	41	30	18	14
DF-30-1AA	54	48	36	12	690	30,000	5	8	14	19	20	15	11	10
DF-30-2AA	54	48	48	12	880	30,000	6	10	17	24	25	18	13	11
DF-30-3AA	54	48	60	12	1038	30,000	7	12	21	29	31	22	15	12
DF-30-4AA	54	48	72	12	1228	30,000	8	14	24	34	36	25	17	13
DF-30-5AA	54	48	96	12	1576	30,000	9	17	32	43	47	32	21	16
DF-36-1A	54	54	36	12	813	36,000	4	7	13	20	24	20	13	10
DF-36-2A	54	54	48	12	1040	36,000	5	9	17	25	30	24	15	12
DF-36-3A	54	54	60	12	1230	36,000	5	11	21	31	37	29	18	14
DF-36-4A	54	54	72	12	1456	36,000	6	13	24	36	43	34	21	15
DF-36-5A	54	54	96	12	1873	36,000	8	16	31	43	49	43	26	18
DF-36-1AA	60	66	36	12	986	36,000	6	10	15	19	22	19	14	11
DF-36-2AA	60	66	48	12	1258	36,000	7	12	19	26	29	24	16	13
DF-36-3AA	60	66	60	12	1477	36,000	8	15	24	32	35	29	19	15
DF-36-4AA	60	66	72	12	1750	36,000	9	17	29	38	42	34	22	17
DF-36-5AA	60	66	96	12	2241	36,000	11	22	38	43	49	43	28	21

*DIMENSIONS WITHOUT FLANGES, ADD 4" TO 6" TO ALLOW FOR FLANGES
 ** MAXIMUM ALLOWABLE FLOW IS 10% HIGHER THAN RATED FLOW

MODEL DF

Model	A*	B*	C*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	063	OCTAVE BAND CENTER FREQUENCY, KHz							
								125	25	5	1	2	4	8	
DF-42-1A	66	54	36	12	1177	42,000	4	7	13	20	24	20	13	10	
DF-42-2A	66	54	48	12	1491	42,000	5	9	17	25	30	24	15	12	
DF-42-3A	66	54	60	12	1760	42,000	6	11	21	31	37	29	18	14	
DF-42-4A	66	54	72	12	2074	42,000	6	13	24	36	43	34	21	15	
DF-42-5A	66	54	96	12	2656	42,000	8	16	31	43	49	43	26	18	
DF-42-1AA	66	66	36	12	1357	42,000	6	10	15	19	22	19	14	11	
DF-42-2AA	66	66	48	12	1720	42,000	7	12	19	26	29	24	16	13	
DF-42-3AA	66	66	60	12	2024	42,000	8	15	24	32	35	29	19	15	
DF-42-4AA	66	66	72	12	2386	42,000	9	17	28	38	42	34	22	17	
DF-42-5AA	66	66	96	12	3052	42,000	11	22	38	43	49	43	28	21	
DF-48-1A	54	60	36	12	846	48,000	4	7	12	17	17	14	9	8	
DF-48-2A	54	60	48	12	1080	48,000	4	8	16	22	22	17	11	9	
DF-48-3A	54	60	60	12	1277	48,000	5	10	19	26	27	20	13	11	
DF-48-4A	54	60	72	12	1511	48,000	5	11	22	31	31	23	15	12	
DF-48-5A	54	60	96	12	1943	48,000	6	14	28	40	41	30	18	14	
DF-48-1AA	66	69	36	12	1374	48,000	5	9	14	19	21	17	12	10	
DF-48-2AA	66	69	48	12	1740	48,000	6	11	18	25	27	21	14	12	
DF-48-3AA	66	69	60	12	2047	48,000	7	13	22	30	33	25	17	13	
DF-48-4AA	66	69	72	12	2413	48,000	8	15	25	36	39	29	19	15	
DF-48-5AA	66	69	96	12	3087	48,000	10	19	33	43	49	38	24	18	
DF-54-1A	60	60	36	3/16	1123	54,000	4	7	12	17	17	14	9	8	
DF-54-2A	60	60	48	3/16	1441	54,000	4	8	16	21	22	17	11	9	
DF-54-3A	60	60	60	3/16	1718	54,000	5	10	19	26	27	20	13	11	
DF-54-4A	60	60	72	3/16	2035	54,000	5	11	22	31	31	23	15	12	
DF-54-5A	60	60	96	3/16	2629	54,000	6	14	28	40	41	30	18	14	
DF-54-1AA	60	72	36	3/16	1269	54,000	5	8	13	19	20	15	11	10	
DF-54-2AA	60	72	48	3/16	1623	54,000	6	10	17	24	25	18	13	11	
DF-54-3AA	60	72	60	3/16	1923	54,000	7	12	21	29	31	22	15	12	
DF-54-4AA	60	72	72	3/16	2276	54,000	8	14	24	34	36	25	17	13	
DF-54-5AA	60	72	96	3/16	2930	54,000	9	17	31	43	47	32	21	16	
DF-60-1A	66	60	36	3/16	1470	60,000	4	7	12	17	17	14	9	8	
DF-60-2A	66	60	48	3/16	1862	60,000	4	8	16	21	22	17	11	9	
DF-60-3A	66	60	60	3/16	2208	60,000	5	10	19	26	27	20	13	11	
DF-60-4A	66	60	72	3/16	2600	60,000	5	11	22	31	31	24	15	12	
DF-60-5A	66	60	96	3/16	3338	60,000	6	14	28	40	41	30	18	14	
DF-60-1AA	72	72	36	3/16	1772	60,000	5	8	14	19	20	15	11	10	
DF-60-2AA	72	72	48	3/16	2247	60,000	6	10	17	24	25	18	13	11	
DF-60-3AA	72	72	60	3/16	2657	60,000	7	12	21	29	31	22	15	12	
DF-60-4AA	72	72	72	3/16	3132	60,000	8	14	24	34	36	25	17	13	
DF-60-5AA	72	72	96	3/16	4017	60,000	9	17	32	43	47	32	21	16	
DF-80-1A	60	66	36	3/16	1168	80,000	4	6	11	15	16	12	9	8	
DF-80-2A	60	66	48	3/16	1497	80,000	4	8	14	19	20	14	10	9	
DF-80-3A	60	66	60	3/16	1784	80,000	4	9	17	23	25	17	11	10	
DF-80-4A	60	66	72	3/16	2113	80,000	5	10	19	27	29	20	13	10	
DF-80-5A	60	66	96	3/16	2728	80,000	5	12	25	35	38	25	16	12	
DF-80-1AA	90	72	36	3/16	2065	80,000	5	8	13	19	20	15	11	10	
DF-80-2AA	90	72	48	3/16	2621	80,000	6	10	17	24	25	18	13	11	
DF-80-3AA	90	72	60	3/16	3099	80,000	7	12	21	29	31	22	15	12	
DF-80-4AA	90	72	72	3/16	3656	80,000	8	14	24	34	36	25	17	13	
DF-80-5AA	90	72	96	3/16	4690	80,000	9	17	31	43	47	32	21	16	
DF-100-1A	72	66	36	3/16	1602	100,000	4	6	11	15	16	12	9	8	
DF-100-2A	72	66	48	3/16	2030	100,000	4	8	14	19	20	15	10	9	
DF-100-3A	72	66	60	3/16	2408	100,000	4	9	17	23	25	17	12	10	
DF-100-4A	72	66	72	3/16	2835	100,000	5	10	19	27	29	20	13	10	
DF-100-5A	72	66	96	3/16	3640	100,000	5	12	25	35	38	25	16	12	
DF-100-1AA	84	78	36	3/16	2012	100,000	5	8	12	15	15	12	9	9	
DF-100-2AA	84	78	48	3/16	2552	100,000	6	10	15	19	19	14	11	10	
DF-100-3AA	84	78	60	3/16	3018	100,000	6	11	19	23	23	17	12	11	
DF-100-4AA	84	78	72	3/16	3558	100,000	7	13	22	27	27	20	14	12	
DF-100-5AA	84	78	96	3/16	4564	100,000	8	17	28	35	35	25	17	14	

MODEL DFV Rainhoods For Vertical DF Silencers



The Aeroacoustic® Corporation has designed rainhoods which will provide uniform flow at the silencer face thereby resulting in a minimum increase in pressure drop when used with an Aeroacoustic fan inlet silencer.

DFV model numbers correspond to DF silencer model numbers

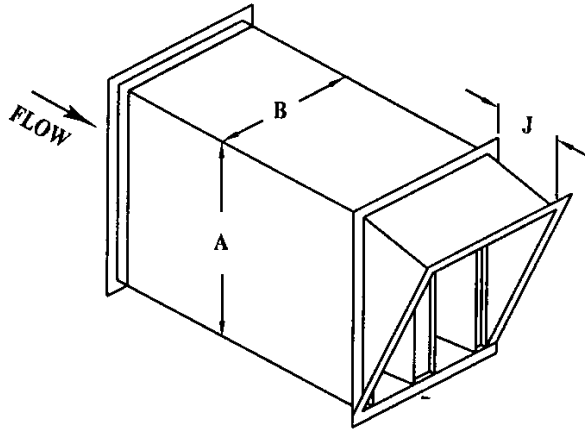
Rainhoods for vertical installation will add .25" ΔP at silencer rated flow.

Dimensions without flanges add 4" to 6" to allow for flanges

INSIDE DIMENSIONS, RAINHOODS FOR VERTICAL DF SERIES

MODEL	A	B	H	J	SHELL	WEIGHT
DFV-2.5 -1A, 2A, 3A, 4A, 5A	24	15	26	48	12	91
DFV-2.5-1AA, 2AA, 3AA, 4AA, 5AA	24	19	26	48	12	115
DFV-5-1A, 2A, 3A, 4A, 5A	24	18	26	48	12	109
DFV-5-1AA, 2AA, 3AA, 4AA, 5AA	36	20	38	72	12	152
DFV-9-1A, 2A, 3A, 4A, 5A	28	20	30	56	12	132
DFV-9-1AA, 2AA, 3AA, 4AA, 5AA	42	22	44	84	12	184
DFV-12-1A, 2A, 3A, 4A, 5A	30	36	32	60	12	272
DFV-12-1AA, 2AA, 3AA, 4AA, 5AA	30	44	32	60	12	356
DFV-15-1A, 2A, 3A, 4A, 5A	36	36	38	72	12	296
DFV-15-1AA, 2AA, 3AA, 4AA, 5AA	36	44	38	72	12	383
DFV-18-1A, 2A, 3A, 4A, 5A	42	36	44	84	12	319
DFV-18-1AA, 2AA, 3AA, 4AA, 5AA	44	44	46	88	12	420
DFV-21-1A, 2A, 3A, 4A, 5A	48	36	50	96	12	342
DFV-21-1AA, 2AA, 3AA, 4AA, 5AA	48	44	50	96	12	438
DFV-24-1A, 2A, 3A, 4A, 5A	42	40	44	84	12	364
DFV-24-1AA, 2AA, 3AA, 4AA, 5AA	42	54	44	84	12	541
DFV-27-1A, 2A, 3A, 4A, 5A	48	40	50	96	12	389
DFV-27-1AA, 2AA, 3AA, 4AA, 5AA	54	46	56	108	12	492
DFV-30-1A, 2A, 3A, 4A, 5A	48	40	50	96	12	389
DFV-30-1AA, 2AA, 3AA, 4AA, 5AA	54	48	56	108	12	520
DFV-36-1A, 2A, 3A, 4A, 5A	54	54	56	108	12	606
DFV-36-1AA, 2AA, 3AA, 4AA, 5AA	60	66	62	120	12	835
DFV-42-1A, 2A, 3A, 4A, 5A	66	54	68	132	12	671
DFV-42-1AA, 2AA, 3AA, 4AA, 5AA	66	66	68	132	12	873
DFV-48-1A, 2A, 3A, 4A, 5A	54	60	56	108	12	698
DFV-48-1AA, 2AA, 3AA, 4AA, 5AA	66	69	68	132	12	927
DFV-54-1A, 2A, 3A, 4A, 5A	60	60	63	120	12	798
DFV-54-1AA, 2AA, 3AA, 4AA, 5AA	60	72	63	120	12	1013
DFV-60-1A, 2A, 3A, 4A, 5A	66	60	69	132	12	837
DFV-60-1AA, 2AA, 3AA, 4AA, 5AA	72	72	75	144	12	1102
DFV-80-1A, 2A, 3A, 4A, 5A	60	66	63	120	12	903
DFV-80-1AA, 2AA, 3AA, 4AA, 5AA	90	72	93	180	12	1237
DFV-100-1A, 2A, 3A, 4A, 5A	72	66	75	144	12	986
DFV-100-1AA, 2AA, 3AA, 4AA, 5AA	84	78	87	168	12	1321

MODEL DFH Rainhoods For Horizontal DF Silencers



The Aeroacoustic® Corporation has designed rainhoods which will provide uniform flow at the silencer face thereby resulting in a minimum increase (if any) in pressure drop when used with an Aeroacoustic fan inlet silencer.

DFH model numbers correspond to DF silencer model numbers

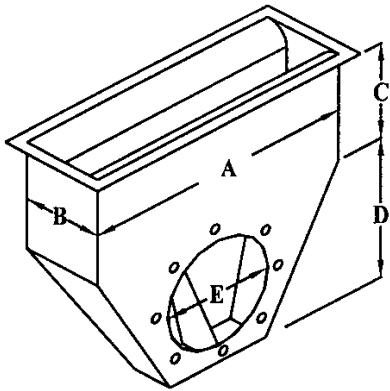
Rainhoods for horizontal installation will add zero ΔP at silencer rated flow.

Dimensions without flanges add 4" to 6" to allow for flanges

DIMENSIONS IN INCHES

MODEL	A	B	J	SHELL GAGE	WEIGHT
DFH-2.5 -1A, 2A, 3A, 4A, 5A	24	15	19	12	57
DFH-2.5-1AA, 2AA, 3AA, 4AA, 5AA	24	19	19	12	67
DFH-5-1A, 2A, 3A, 4A, 5A	24	18	19	12	65
DFH-5-1AA, 2AA, 3AA, 4AA, 5AA	36	20	29	12	94
DFH-9-1A, 2A, 3A, 4A, 5A	28	20	23	12	78
DFH-9-1AA, 2AA, 3AA, 4AA, 5AA	42	22	34	12	114
DFH-12-1A, 2A, 3A, 4A, 5A	30	36	24	12	132
DFH-12-1AA, 2AA, 3AA, 4AA, 5AA	30	44	24	12	157
DFH-15-1A, 2A, 3A, 4A, 5A	36	36	29	12	150
DFH-15-1AA, 2AA, 3AA, 4AA, 5AA	36	44	29	12	179
DFH-18-1A, 2A, 3A, 4A, 5A	42	36	34	12	169
DFH-18-1AA, 2AA, 3AA, 4AA, 5AA	44	44	36	12	208
DFH-21-1A, 2A, 3A, 4A, 5A	48	36	39	12	188
DFH-21-1AA, 2AA, 3AA, 4AA, 5AA	48	44	39	12	222
DFH-24-1A, 2A, 3A, 4A, 5A	42	40	34	12	185
DFH-24-1AA, 2AA, 3AA, 4AA, 5AA	42	54	34	12	240
DFH-27-1A, 2A, 3A, 4A, 5A	48	40	39	12	413
DFH-27-1AA, 2AA, 3AA, 4AA, 5AA	54	46	44	12	254
DFH-30-1A, 2A, 3A, 4A, 5A	48	40	39	12	205
DFH-30-1AA, 2AA, 3AA, 4AA, 5AA	54	48	44	12	263
DFH-36-1A, 2A, 3A, 4A, 5A	54	54	44	12	292
DFH-36-1AA, 2AA, 3AA, 4AA, 5AA	60	66	49	12	380
DFH-42-1A, 2A, 3A, 4A, 5A	66	54	53	12	344
DFH-42-1AA, 2AA, 3AA, 4AA, 5AA	66	66	53	12	411
DFH-48-1A, 2A, 3A, 4A, 5A	54	60	44	12	321
DFH-48-1AA, 2AA, 3AA, 4AA, 5AA	66	69	53	12	428
DFH-54-1A, 2A, 3A, 4A, 5A	60	60	49	12	439
DFH-54-1AA, 2AA, 3AA, 4AA, 5AA	60	72	49	12	513
DFH-60-1A, 2A, 3A, 4A, 5A	66	60	53	12	471
DFH-60-1AA, 2AA, 3AA, 4AA, 5AA	72	72	58	12	586
DFH-80-1A, 2A, 3A, 4A, 5A	60	66	49	12	476
DFH-80-1AA, 2AA, 3AA, 4AA, 5AA	90	72	73	12	695
DFH-100-1A, 2A, 3A, 4A, 5A	72	66	58	12	544
DFH-100-1AA, 2AA, 3AA, 4AA, 5AA	84	78	68	12	706

MODEL SI FOR SINGLE INLET FANS WITHOUT INLET BOXES--90 DEGREE INLETS



The Aeroacoustic "Silentflow"® Model SI fan inlet silencer is designed to bolt directly to the fan inlet flange. This silencer includes a silencing section, followed by a plenum section large enough to accommodate the fan inlet opening. A removable plate is incorporated on the sides or back to allow access to the plenum for installation and inspection. A 3/4" galvanized mesh inlet screen is also standard. When selecting a silencer, choose one at the maximum or lower flow with the required acoustics, as per table, and with an inlet opening equal to, or smaller than, dimension "E". If fan inlet velocity ≤ 4000 FPM the "D" dimension = fan inlet diameter + 8". If the fan inlet velocity > 4000 FPM the "D" dimension = fan inlet diameter + 20".

Model	A*	B*	C*	Max E*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, KHz							
								.063	.125	.25	.5	1	2	4	8
SI-2.5-1A	24	15	24	18	12	221	2,500	5	7	15	22	26	23	19	18
SI-2.5-2A	24	15	30	18	12	245	2,500	6	10	17	26	31	28	21	20
SI-2.5-3A	24	15	36	18	12	270	2,500	6	12	20	31	37	33	24	22
SI-2.5-4A	24	15	42	18	12	295	2,500	7	13	35	35	42	38	27	23
SI-2.5-5A	24	15	48	18	12	325	2,500	8	15	26	40	48	42	30	25
SI-2.5-1AA	18	20	24	12	12	199	2,500	9	11	15	19	20	18	14	14
SI-2.5-2AA	18	20	30	12	12	222	2,500	9	12	17	22	24	21	16	15
SI-2.5-3AA	18	20	36	12	12	246	2,500	10	13	20	25	28	24	17	16
SI-2.5-4AA	18	20	42	12	12	269	2,500	10	15	22	29	31	26	19	17
SI-2.5-5AA	18	20	48	12	12	298	2,500	11	16	24	32	35	29	20	18
SI-5-1A	36	15.5	24	30	12	342	5,000	6	9	15	20	23	20	17	15
SI-5-2A	36	15.5	30	30	12	376	5,000	6	10	18	24	28	24	19	17
SI-5-3A	36	15.5	36	30	12	410	5,000	7	11	20	28	32	28	21	18
SI-5-4A	36	15.5	42	30	12	443	5,000	7	13	23	32	37	32	24	19
SI-5-5A	36	15.5	48	30	12	486	5,000	8	14	26	36	42	36	26	21
SI-5-1AA	32	20	24	26	12	340	5,000	9	11	15	19	20	18	14	14
SI-5-2AA	32	20	30	26	12	375	5,000	9	12	17	22	24	21	16	15
SI-5-3AA	32	20	36	26	12	409	5,000	10	14	20	25	28	23	17	16
SI-5-4AA	32	20	42	26	12	443	5,000	10	15	22	29	31	26	19	17
SI-5-5AA	32	20	48	26	12	487	5,000	11	16	24	32	35	29	21	18
SI-9-1A	48	17	30	42	12	535	9,000	5	8	15	22	22	19	15	14
SI-9-2A	48	17	36	42	12	579	9,000	5	9	17	23	26	21	16	15
SI-9-3A	48	17	42	42	12	623	9,000	6	11	19	27	30	24	18	16
SI-9-4A	48	17	48	42	12	677	9,000	6	12	21	30	34	27	20	17
SI-9-5A	48	17	54	42	12	721	9,000	7	13	24	33	37	30	21	18
SI-9-1AA	48	21	30	42	12	589	9,000	7	11	16	20	21	18	15	16
SI-9-2AA	48	21	36	42	12	637	9,000	8	13	19	23	25	20	17	17
SI-9-3AA	48	21	42	42	12	685	9,000	8	14	21	27	28	23	18	17
SI-9-4AA	48	21	48	42	12	746	9,000	9	15	24	30	32	26	20	18
SI-9-5AA	48	21	54	42	12	794	9,000	9	17	26	34	36	28	21	19
SI-12-1A	54	18	36	48	12	674	12,000	5	9	15	21	23	17	14	14
SI-12-2A	54	18	42	48	12	723	12,000	5	10	17	24	27	20	15	15
SI-12-3A	54	18	48	48	12	784	12,000	6	11	19	27	30	22	16	16
SI-12-4A	54	18	54	48	12	833	12,000	6	12	21	30	33	24	18	16
SI-12-5A	54	18	60	48	12	882	12,000	6	13	23	33	36	26	19	17
SI-12-1AA	54	22	36	48	12	738	12,000	7	11	16	20	22	18	15	15
SI-12-2AA	54	22	42	48	12	791	12,000	7	13	18	24	25	20	16	16
SI-12-3AA	54	22	48	48	12	860	12,000	8	14	21	27	28	22	17	17
SI-12-4AA	54	22	54	48	12	913	12,000	9	15	23	30	32	25	19	18
SI-12-5AA	54	22	60	48	12	966	12,000	9	17	26	33	35	27	20	19
SI-15-1A	54	31	24	48	12	800	15,000	6	9	15	20	23	20	17	15
SI-15-2A	54	31	30	48	12	873	15,000	6	10	18	24	28	24	19	17
SI-15-3A	54	31	36	48	12	946	15,000	7	11	20	28	32	28	21	18
SI-15-4A	54	31	42	48	12	1018	15,000	7	13	23	32	37	32	24	19
SI-15-5A	54	31	48	48	12	1116	15,000	8	14	26	36	42	36	26	21
SI-15-1AA	54	39	24	48	12	912	15,000	8	11	15	21	23	20	16	15
SI-15-2AA	54	39	30	48	12	992	15,000	9	12	17	25	28	24	19	17
SI-15-3AA	54	39	36	48	12	1073	15,000	10	14	20	29	32	27	21	18
SI-15-4AA	54	39	42	48	12	1154	15,000	11	15	22	33	37	31	23	19
SI-15-5AA	54	39	48	48	12	1267	15,000	11	17	25	37	41	34	25	21

MODEL SI

Model	A*	B*	C*	E*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, KHz							
								.063	.125	.25	.5	1	2	4	8
SI-18-1A	60	32	24	54	12	913	18,000	6	8	15	20	21	18	14	15
SI-18-2A	60	32	30	54	12	993	18,000	6	9	17	23	25	21	16	16
SI-18-3A	60	32	36	54	12	1072	18,000	6	10	20	27	29	24	18	17
SI-18-4A	60	32	42	54	12	1152	18,000	6	11	22	30	34	28	20	18
SI-18-5A	60	32	48	54	12	1259	18,000	7	12	24	34	38	31	22	20
SI-18-1AA	60	40	24	54	12	1034	18,000	9	11	15	19	20	18	14	14
SI-18-2AA	60	40	30	54	12	1123	18,000	9	12	17	22	24	21	16	15
SI-18-3AA	60	40	36	54	12	1211	18,000	10	13	20	25	28	23	17	16
SI-18-4AA	60	40	42	54	12	1300	18,000	10	15	22	29	31	26	19	17
SI-18-5AA	60	40	48	54	12	1424	18,000	11	16	24	32	35	29	21	18
SI-21-1A	60	33	30	54	12	1002	21,000	5	9	16	22	24	20	16	15
SI-21-2A	60	33	36	54	12	1083	21,000	6	10	18	25	28	23	18	16
SI-21-3A	60	33	42	54	12	1163	21,000	6	11	21	29	32	26	19	17
SI-21-4A	60	33	48	54	12	1271	21,000	6	12	23	32	36	29	21	18
SI-21-5A	60	33	54	54	12	1351	21,000	7	13	25	36	40	32	23	19
SI-21-1AA	60	41	30	54	12	1133	21,000	8	12	17	21	23	19	15	15
SI-21-2AA	60	41	36	54	12	1222	21,000	9	13	19	25	26	22	17	16
SI-21-3AA	60	41	42	54	12	1311	21,000	9	14	22	28	30	24	18	17
SI-21-4AA	60	41	48	54	12	1435	21,000	10	16	24	32	34	27	20	18
SI-21-5AA	60	41	54	54	12	1524	21,000	10	17	27	35	38	30	22	19
SI-24-1A	60	35	36	54	12	1103	24,000	5	9	16	22	25	19	15	14
SI-24-2A	60	35	42	54	12	1185	24,000	5	10	18	25	28	22	16	15
SI-24-3A	60	35	48	54	12	1294	24,000	6	11	20	28	32	24	18	16
SI-24-4A	60	35	54	54	12	1376	24,000	6	12	22	32	35	27	19	17
SI-24-5A	60	35	60	54	12	1457	24,000	7	13	24	35	39	29	21	18
SI-24-1AA	60	43	36	54	12	1242	24,000	7	12	18	22	23	19	16	16
SI-24-2AA	60	43	42	54	12	1333	24,000	8	14	20	25	26	21	17	17
SI-24-3AA	60	43	48	54	12	1458	24,000	9	15	23	29	30	24	19	18
SI-24-4AA	60	43	54	54	12	1549	24,000	9	17	25	32	33	26	20	19
SI-24-5AA	60	43	60	54	12	1639	24,000	10	18	28	35	37	29	22	20
SI-27-1A	72	34	30	66	12	1291	27,000	5	8	15	20	22	19	15	14
SI-27-2A	72	34	36	66	12	1394	27,000	5	9	17	23	26	21	16	15
SI-27-3A	72	34	42	66	12	1496	27,000	6	11	19	27	30	24	18	16
SI-27-4A	72	34	48	66	12	1631	27,000	6	12	21	30	34	27	20	17
SI-27-5A	72	34	54	66	12	1733	27,000	7	13	24	33	37	30	21	18
SI-27-1AA	72	42	30	66	12	1455	27,000	7	11	16	20	21	18	15	16
SI-27-2AA	72	42	36	66	12	1569	27,000	8	13	19	23	25	20	17	17
SI-27-3AA	72	42	42	66	12	1684	27,000	8	14	21	27	28	23	18	17
SI-27-4AA	72	42	48	66	12	1840	27,000	9	15	24	30	32	26	20	18
SI-27-5AA	72	42	54	66	12	1955	27,000	9	17	26	34	36	28	21	19
SI-30-1A	72	35	36	66	12	1405	30,000	5	9	16	22	25	19	15	14
SI-30-2A	72	35	42	66	12	1508	30,000	5	10	18	25	28	22	16	15
SI-30-3A	72	35	48	66	12	1644	30,000	6	11	20	28	32	24	18	16
SI-30-4A	72	35	54	66	12	1746	30,000	6	12	22	32	35	27	19	17
SI-30-5A	72	35	60	66	12	1849	30,000	7	13	24	35	39	29	21	18
SI-30-1AA	72	44	36	66	12	1592	30,000	7	11	16	20	22	18	15	15
SI-30-2AA	72	44	42	66	12	1708	30,000	7	13	18	24	25	20	16	16
SI-30-3AA	72	44	48	66	12	1866	30,000	8	14	21	27	28	22	17	17
SI-30-4AA	72	44	54	66	12	1982	30,000	9	15	23	30	32	25	19	18
SI-30-5AA	72	44	60	66	12	2097	30,000	9	17	26	33	35	27	20	19
SI-36-1A	60	40	42	54	12	1806	36,000	5	9	16	20	19	14	12	13
SI-36-2A	60	40	48	54	12	1948	36,000	5	10	17	22	21	15	13	13
SI-36-3A	60	40	54	54	12	2062	36,000	6	11	19	24	24	17	14	14
SI-36-4A	60	40	60	54	12	2177	36,000	6	11	21	27	26	18	14	14
SI-36-5A	60	40	66	54	12	2291	36,000	6	12	23	29	28	19	15	15
SI-36-1AA	60	48	42	54	3/16	2006	36,000	6	10	17	22	22	15	13	14
SI-36-2AA	60	48	48	54	3/16	2167	36,000	7	11	19	25	24	16	14	15
SI-36-3AA	60	48	54	54	3/16	2292	36,000	7	12	21	27	27	18	15	15
SI-36-4AA	60	48	60	54	3/16	2418	36,000	8	13	23	30	30	20	16	16
SI-36-5AA	60	48	66	54	3/16	2544	36,000	8	14	25	33	32	21	17	17

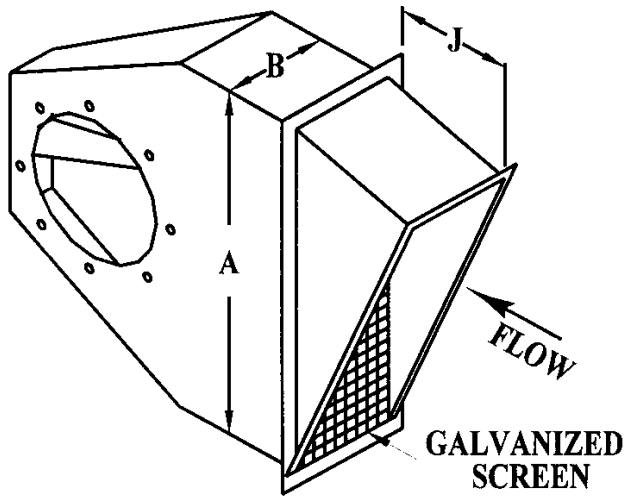
*DIMENSIONS WITHOUT FLANGES, ADD 4" TO 6" TO ALLOW FOR FLANGES
 ** MAXIMUM ALLOWABLE FLOW IS 10% HIGHER THAN RATED FLOW.

MODEL SI

Model	A*	B*	C*	E*	SHELL GAGE	WEIGHT	**RATED CFM @ 1.0" DP	OCTAVE BAND CENTER FREQUENCY, KHz							
								.063	.125	.25	.5	1	2	4	8
SI-42-1A	72	40	42	66	3/16	2274	42,000	5	9	16	20	19	14	12	13
SI-42-2A	72	40	48	66	3/16	2447	42,000	5	10	17	22	21	15	13	13
SI-42-3A	72	40	54	66	3/16	2586	42,000	6	11	19	24	24	17	14	14
SI-42-4A	72	40	60	66	3/16	2725	42,000	6	11	21	27	26	18	14	14
SI-42-5A	72	40	66	66	3/16	2864	42,000	6	12	23	29	28	19	15	15
SI-42-1AA	72	48	42	66	3/16	2522	42,000	6	10	17	22	22	15	13	14
SI-42-2AA	72	48	48	66	3/16	2718	42,000	7	11	19	25	24	17	14	15
SI-42-3AA	72	48	54	66	3/16	2872	42,000	7	12	21	27	27	18	15	15
SI-42-4AA	72	48	60	66	3/16	3025	42,000	8	13	23	30	30	20	16	16
SI-42-5AA	72	48	66	66	3/16	3179	42,000	8	14	25	33	32	21	17	17
SI-48-1A	84	40	42	78	3/16	2719	48,000	5	9	16	20	19	14	12	13
SI-48-2A	84	40	48	78	3/16	2913	48,000	5	10	17	22	21	15	13	13
SI-48-3A	84	40	54	78	3/16	3068	48,000	6	10	19	24	24	17	14	14
SI-48-4A	84	40	60	78	3/16	3224	48,000	6	11	21	27	26	18	14	14
SI-48-5A	84	40	66	78	3/16	3380	48,000	6	12	23	29	28	20	15	15
SI-48-1AA	84	48	42	78	3/16	2997	48,000	6	10	17	22	22	15	13	14
SI-48-2AA	84	48	48	78	3/16	3218	48,000	7	11	19	25	24	17	14	15
SI-48-3AA	84	48	54	78	3/16	3389	48,000	7	12	21	27	27	18	15	15
SI-48-4AA	84	48	60	78	3/16	3560	48,000	8	13	23	30	30	20	16	16
SI-48-5AA	84	48	66	78	3/16	3731	48,000	8	14	25	33	32	21	17	17
SI-54-1A	90	40	42	84	3/16	2953	54,000	5	9	16	20	19	14	12	13
SI-54-2A	90	40	48	84	3/16	3158	54,000	5	10	17	22	21	15	13	13
SI-54-3A	90	40	54	84	3/16	3322	54,000	6	11	19	24	24	17	14	14
SI-54-4A	90	40	60	84	3/16	3486	54,000	6	11	21	27	26	18	14	14
SI-54-5A	90	40	66	84	3/16	3650	54,000	6	12	23	29	28	19	15	15
SI-54-1AA	90	48	42	84	3/16	3247	54,000	6	10	17	22	22	15	13	14
SI-54-2AA	90	48	48	84	3/16	3480	54,000	7	11	19	25	24	16	14	15
SI-54-3AA	90	48	54	84	3/16	3660	54,000	7	12	21	27	27	18	15	15
SI-54-4AA	90	48	60	84	3/16	3840	54,000	8	13	23	30	30	20	16	16
SI-54-5AA	90	48	66	84	3/16	3968	54,000	8	14	25	33	32	21	17	17
SI-60-1A	90	54	36	84	3/16	3368	60,000	5	9	15	21	23	17	14	14
SI-60-2A	90	54	42	84	3/16	3577	60,000	5	10	17	24	27	20	15	15
SI-60-3A	90	54	48	84	3/16	3847	60,000	6	11	19	27	30	22	16	16
SI-60-4A	90	54	54	84	3/16	4056	60,000	6	12	21	30	33	24	18	16
SI-60-5A	90	54	60	84	3/16	4265	60,000	6	13	23	33	36	26	19	17
SI-60-1AA	90	66	36	84	3/16	3784	60,000	7	11	16	20	22	18	15	15
SI-60-2AA	90	66	42	84	3/16	4017	60,000	7	13	18	24	25	20	16	16
SI-60-3AA	90	66	48	84	3/16	4330	60,000	8	14	21	27	28	22	17	17
SI-60-4AA	90	66	54	84	3/16	4563	60,000	9	15	23	30	32	25	19	18
SI-60-5AA	90	66	60	84	3/16	4796	60,000	9	17	26	33	35	27	20	19
SI-80-1A	102	57	36	96	3/16	4007	80,000	5	9	15	21	21	15	13	13
SI-80-2A	102	57	42	96	3/16	4243	80,000	5	10	17	24	24	17	14	14
SI-80-3A	102	57	48	96	3/16	4549	80,000	6	11	19	27	26	19	15	14
SI-80-4A	102	57	54	96	3/16	4785	80,000	6	12	21	30	29	21	16	15
SI-80-5A	102	57	60	96	3/16	5021	80,000	6	13	22	32	32	23	17	16
SI-80-1AA	102	69	36	96	3/16	4474	80,000	6	10	15	20	21	15	13	14
SI-80-2AA	102	69	42	96	3/16	4737	80,000	7	11	17	23	24	17	14	15
SI-80-3AA	102	69	48	96	3/16	5091	80,000	7	12	19	26	26	19	15	16
SI-80-4AA	102	69	54	96	3/16	5354	80,000	8	13	22	29	29	21	17	16
SI-80-5AA	102	69	60	96	3/16	5618	80,000	8	15	24	31	32	23	18	17
SI-100-1A	108	60	36	102	3/16	4368	100,000	5	8	14	17	17	12	11	12
SI-100-2A	108	60	42	120	3/16	4618	100,000	5	9	16	20	19	14	12	13
SI-100-3A	108	60	48	102	3/16	4941	100,000	5	10	18	22	21	15	13	13
SI-100-4A	108	60	54	102	3/16	5190	100,000	6	11	19	24	24	17	13	14
SI-100-5A	108	60	60	102	3/16	5439	100,000	6	11	21	27	26	18	14	14
SI-100-1AA	108	72	36	102	3/16	4858	100,000	6	9	15	19	19	13	12	14
SI-100-2AA	108	72	42	102	3/16	5135	100,000	6	10	17	22	22	15	13	14
SI-100-3AA	108	72	48	102	3/16	5508	100,000	7	11	19	25	24	16	14	15
SI-100-4AA	108	72	54	102	3/16	5785	100,000	7	12	21	27	27	18	15	15
SI-100-5AA	108	72	60	102	3/16	6062	100,000	8	13	23	30	30	20	16	16

* DIMENSIONS WITHOUT FLANGES, ADD 4" TO 6" TO ALLOW FOR FLANGES
 ** MAXIMUM ALLOWABLE FLOW IS 10% HIGHER THAN RATED FLOW.

MODEL SIH Rainhoods For Horizontal SI Silencers



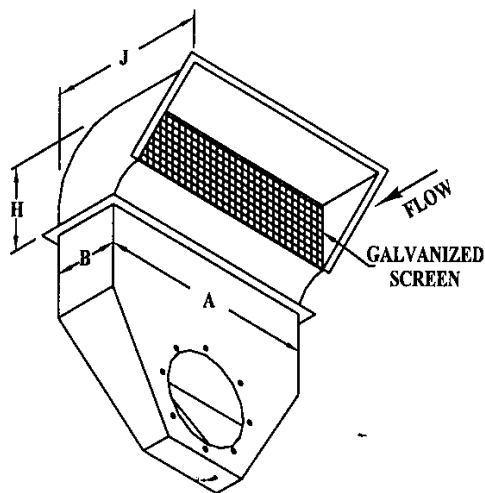
The Aeroacoustic® Corporation has designed rainhoods which will provide uniform flow at the silencer face thereby resulting in a minimum in pressure drop when used with an Aeroacoustic fan inlet silencer.

Rainhoods for horizontal installation will add zero ΔP at silencer rated flow.

INSIDE DIMENSIONS, RAINHOODS FOR HORIZONTAL SI SERIES

MODEL	A	B	J	SHELL GAGE	WEIGHT
SIH-2.5 -1A, 2A, 3A, 4A, 5A	24	15	20	12	57
SIH-2.5-1AA, 2AA, 3AA, 4AA, 5AA	18	20	15	12	58
SIH-5-1A, 2A, 3A, 4A, 5A	36	15.5	29	12	78
SIH-5-1AA, 2AA, 3AA, 4AA, 5AA	32	20	26	12	86
SIH-9-1A, 2A, 3A, 4A, 5A	48	17	39	12	105
SIH-9-1AA, 2AA, 3AA, 4AA, 5AA	48	21	39	12	122
SIH-12-1A, 2A, 3A, 4A, 5A	54	18	44	12	120
SIH-12-1AA, 2AA, 3AA, 4AA, 5AA	54	22	44	12	139
SIH-15-1A, 2A, 3A, 4A, 5A	54	31	44	12	182
SIH-15-1AA, 2AA, 3AA, 4AA, 5AA	54	39	44	12	220
SIH-18-1A, 2A, 3A, 4A, 5A	60	32	49	12	204
SIH-18-1AA, 2AA, 3AA, 4AA, 5AA	60	40	49	12	245
SIH-21-1A, 2A, 3A, 4A, 5A	60	33	49	12	209
SIH-21-1AA, 2AA, 3AA, 4AA, 5AA	60	41	49	12	251
SIH-24-1A, 2A, 3A, 4A, 5A	60	35	49	12	220
SIH-24-1AA, 2AA, 3AA, 4AA, 5AA	60	43	49	12	261
SIH-27-1A, 2A, 3A, 4A, 5A	72	34	58	12	250
SIH-27-1AA, 2AA, 3AA, 4AA, 5AA	72	42	58	12	298
SIH-30-1A, 2A, 3A, 4A, 5A	72	35	58	12	256
SIH-30-1AA, 2AA, 3AA, 4AA, 5AA	72	44	58	12	310
SIH-36-1A, 2A, 3A, 4A, 5A	60	40	49	12	245
SIH-36-1AA, 2AA, 3AA, 4AA, 5AA	60	48	49	12	287
SIH-42-1A, 2A, 3A, 4A, 5A	72	40	58	12	286
SIH-42-1AA, 2AA, 3AA, 4AA, 5AA	72	48	58	12	334
SIH-48-1A, 2A, 3A, 4A, 5A	84	40	68	12	326
SIH-48-1AA, 2AA, 3AA, 4AA, 5AA	84	48	68	12	381
SIH-54-1A, 2A, 3A, 4A, 5A	90	40	73	12	432
SIH-54-1AA, 2AA, 3AA, 4AA, 5AA	90	48	73	12	498
SIH-60-1A, 2A, 3A, 4A, 5A	90	54	73	12	547
SIH-60-1AA, 2AA, 3AA, 4AA, 5AA	90	66	73	12	646
SIH-80-1A, 2A, 3A, 4A, 5A	102	57	83	12	632
SIH-80-1AA, 2AA, 3AA, 4AA, 5AA	102	69	83	12	741
SIH-100-1A, 2A, 3A, 4A, 5A	108	60	87	12	691
SIH-100-1AA, 2AA, 3AA, 4AA, 5AA	108	72	87	12	804

MODEL SIV Rainhoods For Vertical SI Silencers



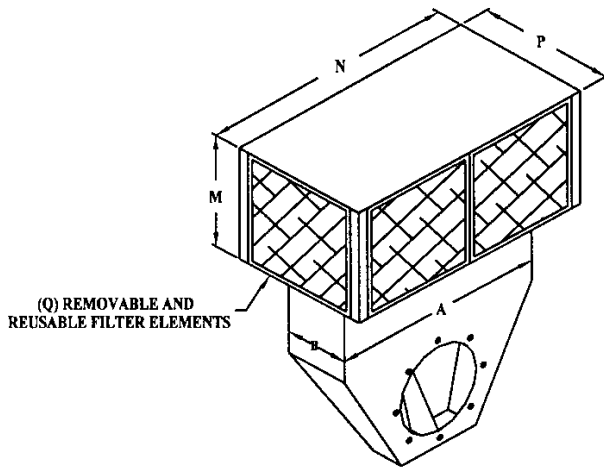
The Aeroacoustic® Corporation has designed rainhoods which will provide uniform flow at the silencer face thereby resulting in a minimum in pressure drop when used with an Aeroacoustic fan inlet silencer.

Rainhoods for vertical installation will add .25" H₂O ΔP at silencer rated flow.

DIMENSIONS IN INCHES

MODEL	A	B	H	J	SHELL GAGE	WEIGHT
SIV-2.5 -1A, 2A, 3A, 4A, 5A	24	15	23	36	12	91
SIV-2.5-1AA, 2AA, 3AA, 4AA, 5AA	18	20	28	46	12	107
SIV-5-1A, 2A, 3A, 4A, 5A	36	15.5	23.5	37	12	120
SIV-5-1AA, 2AA, 3AA, 4AA, 5AA	32	20	28	46	12	142
SIV-9-1A, 2A, 3A, 4A, 5A	48	17	25	40	12	158
SIV-9-1AA, 2AA, 3AA, 4AA, 5AA	48	21	29	48	12	192
SIV-12-1A, 2A, 3A, 4A, 5A	54	18	26	42	12	180
SIV-12-1AA, 2AA, 3AA, 4AA, 5AA	54	22	30	50	12	217
SIV-15-1A, 2A, 3A, 4A, 5A	54	31	42	71	12	309
SIV-15-1AA, 2AA, 3AA, 4AA, 5AA	54	39	50	87	12	402
SIV-18-1A, 2A, 3A, 4A, 5A	60	32	43	73	12	341
SIV-18-1AA, 2AA, 3AA, 4AA, 5AA	60	40	51	89	12	440
SIV-21-1A, 2A, 3A, 4A, 5A	60	33	44	75	12	353
SIV-21-1AA, 2AA, 3AA, 4AA, 5AA	60	41	55	94	12	453
SIV-24-1A, 2A, 3A, 4A, 5A	60	35	46	79	12	377
SIV-24-1AA, 2AA, 3AA, 4AA, 5AA	60	43	57	98	12	479
SIV-27-1A, 2A, 3A, 4A, 5A	72	34	45	77	12	409
SIV-27-1AA, 2AA, 3AA, 4AA, 5AA	72	42	56	96	12	519
SIV-30-1A, 2A, 3A, 4A, 5A	72	35	46	79	12	422
SIV-30-1AA, 2AA, 3AA, 4AA, 5AA	72	44	58	100	12	548
SIV-36-1A, 2A, 3A, 4A, 5A	60	40	51	89	12	440
SIV-36-1AA, 2AA, 3AA, 4AA, 5AA	60	48	62	108	12	549
SIV-42-1A, 2A, 3A, 4A, 5A	72	40	51	89	12	490
SIV-42-1AA, 2AA, 3AA, 4AA, 5AA	72	48	62	108	12	608
SIV-48-1A, 2A, 3A, 4A, 5A	84	40	51	89	12	541
SIV-48-1AA, 2AA, 3AA, 4AA, 5AA	84	48	62	108	12	667
SIV-54-1A, 2A, 3A, 4A, 5A	90	40	52	89	12	637
SIV-54-1AA, 2AA, 3AA, 4AA, 5AA	90	48	63	108	12	771
SIV-60-1A, 2A, 3A, 4A, 5A	90	54	69	120	12	878
SIV-60-1AA, 2AA, 3AA, 4AA, 5AA	90	66	81	144	12	1111
SIV-80-1A, 2A, 3A, 4A, 5A	102	57	72	126	12	1009
SIV-80-1AA, 2AA, 3AA, 4AA, 5AA	102	69	84	150	12	1260
SIV-100-1A, 2A, 3A, 4A, 5A	108	60	75	132	12	1108
SIV-100-1AA, 2AA, 3AA, 4AA, 5AA	108	72	87	156	12	1371

MODEL SIF Filter Assemblies For Vertical SI Silencers

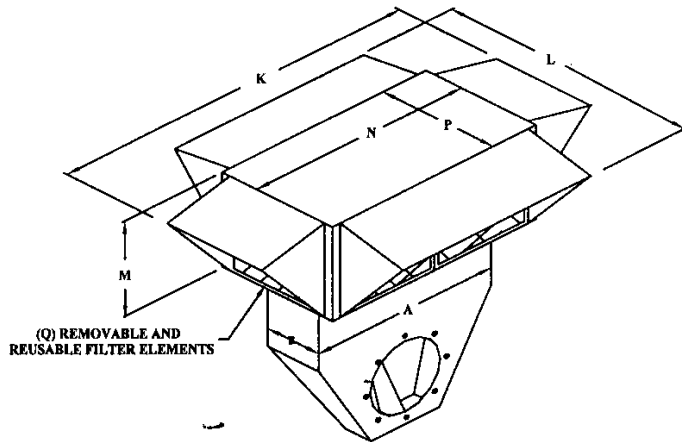


The Aeroacoustic "Silentflow"® Model SI can be supplied with a filter assembly. These filter assemblies will add a ΔP of only .15" H₂O to the silencer. Filter elements are removable and can be reused after cleaning. The filter has a filtering efficiency of 93% at the rated flow on 10 micron particles. SIF model numbers correspond to SI silencer

DIMENSIONS IN INCHES

MODEL	A	B	M	N	P	Q	WEIGHT
SIF-2.5 -1A, 2A, 3A, 4A, 5A	24	15	24	28	28	2	175
SIF-2.5-1AA, 2AA, 3AA, 4AA, 5AA	18	20	24	28	28	2	175
SIF-5-1A, 2A, 3A, 4A, 5A	36	15.5	24	40	28	4	253
SIF-5-1AA, 2AA, 3AA, 4AA, 5AA	32	20	24	40	28	4	253
SIF-9-1A, 2A, 3A, 4A, 5A	48	17	24	52	28	6	321
SIF-9-1AA, 2AA, 3AA, 4AA, 5AA	48	21	24	52	28	6	321
SIF-12-1A, 2A, 3A, 4A, 5A	54	18	24	76	28	8	417
SIF-12-1AA, 2AA, 3AA, 4AA, 5AA	54	22	24	76	28	8	417
SIF-15-1A, 2A, 3A, 4A, 5A	54	31	48	58	52	8	579
SIF-15-1AA, 2AA, 3AA, 4AA, 5AA	54	39	48	58	52	8	579
SIF-18-1A, 2A, 3A, 4A, 5A	60	32	24	76	52	10	658
SIF-18-1AA, 2AA, 3AA, 4AA, 5AA	60	40	24	76	52	10	658
SIF-21-1A, 2A, 3A, 4A, 5A	60	33	48	76	45	12	670
SIF-21-1AA, 2AA, 3AA, 4AA, 5AA	60	41	48	76	45	12	670
SIF-24-1A, 2A, 3A, 4A, 5A	60	35	48	76	48	16	762
SIF-24-1AA, 2AA, 3AA, 4AA, 5AA	60	43	48	76	48	16	762
SIF-27-1A, 2A, 3A, 4A, 5A	72	34	48	76	48	16	762
SIF-27-1AA, 2AA, 3AA, 4AA, 5AA	72	42	48	76	48	16	762
SIF-30-1A, 2A, 3A, 4A, 5A	72	35	48	76	48	16	762
SIF-30-1AA, 2AA, 3AA, 4AA, 5AA	72	44	48	76	48	16	762
SIF-36-1A, 2A, 3A, 4A, 5A	60	40	48	100	52	24	1045
SIF-36-1AA, 2AA, 3AA, 4AA, 5AA	60	48	48	100	52	24	1045
SIF-42-1A, 2A, 3A, 4A, 5A	72	40	48	100	52	24	1045
SIF-42-1AA, 2AA, 3AA, 4AA, 5AA	72	48	48	100	52	24	1045
SIF-48-1A, 2A, 3A, 4A, 5A	84	40	72	88	52	30	1126
SIF-48-1AA, 2AA, 3AA, 4AA, 5AA	84	48	72	88	52	30	1126
SIF-54-1A, 2A, 3A, 4A, 5A	90	40	72	96	54	30	1185
SIF-54-1AA, 2AA, 3AA, 4AA, 5AA	90	48	72	96	54	30	1185
SIF-60-1A, 2A, 3A, 4A, 5A	90	54	48	100	72	32	1534
SIF-60-1AA, 2AA, 3AA, 4AA, 5AA	90	66	48	100	72	32	1534
SIF-80-1A, 2A, 3A, 4A, 5A	102	57	72	120	78	48	2090
SIF-80-1AA, 2AA, 3AA, 4AA, 5AA	102	69	72	120	78	48	2090
SIF-100-1A, 2A, 3A, 4A, 5A	108	60	96	114	78	56	2209
SIF-100-1AA, 2AA, 3AA, 4AA, 5AA	108	72	96	114	78	56	2209

MODEL SFV Filter/Rainhoods For SI Silencers



The Aeroacoustic "Silentflow"® Model SI can be supplied with a filter/rainhood assembly. These filter/rainhood assemblies will add a ΔP of only .15" H₂O to the silencer. Filter elements are removable and can be reused after cleaning. The filter has a filtering efficiency of 93% at the rated flow on 10 micron particles. SFV model numbers correspond to SI silencer model numbers

DIMENSIONS IN INCHES

MODEL	A	B	K	L	M	N	P	Q	WEIGHT
SFV-2.5 -1A, 2A, 3A, 4A, 5A	24	15	66	28	24	28	24	2	175
SFV-2.5-1AA, 2AA, 3AA, 4AA, 5AA	18	20	66	28	24	28	24	2	175
SFV-5-1A, 2A, 3A, 4A, 5A	36	15.5	48	62	24	48	24	4	253
SFV-5-1AA, 2AA, 3AA, 4AA, 5AA	32	20	48	62	24	48	24	4	253
SFV-9-1A, 2A, 3A, 4A, 5A	48	17	90	66	24	52	28	6	321
SFV-9-1AA, 2AA, 3AA, 4AA, 5AA	48	21	90	66	24	52	28	6	321
SFV-12-1A, 2A, 3A, 4A, 5A	54	18	114	66	24	76	28	8	417
SFV-12-1AA, 2AA, 3AA, 4AA, 5AA	54	22	114	66	24	76	28	8	417
SFV-15-1A, 2A, 3A, 4A, 5A	54	31	96	90	48	58	52	8	578
SFV-15-1AA, 2AA, 3AA, 4AA, 5AA	54	39	96	90	48	58	52	8	578
SFV-18-1A, 2A, 3A, 4A, 5A	60	32	114	90	24	76	52	10	658
SFV-18-1AA, 2AA, 3AA, 4AA, 5AA	60	40	114	90	24	76	52	10	658
SFV-21-1A, 2A, 3A, 4A, 5A	60	33	76	83	48	76	45	12	670
SFV-21-1AA, 2AA, 3AA, 4AA, 5AA	60	41	76	83	48	76	45	12	670
SFV-24-1A, 2A, 3A, 4A, 5A	60	35	114	86	48	76	48	16	762
SFV-24-1AA, 2AA, 3AA, 4AA, 5AA	60	43	114	86	48	76	48	16	762
SFV-27-1A, 2A, 3A, 4A, 5A	72	34	114	86	48	76	48	16	762
SFV-27-1AA, 2AA, 3AA, 4AA, 5AA	72	42	114	86	48	76	48	16	762
SFV-30-1A, 2A, 3A, 4A, 5A	72	35	114	86	48	76	48	16	762
SFV-30-1AA, 2AA, 3AA, 4AA, 5AA	72	44	114	86	48	76	48	16	762
SFV-36-1A, 2A, 3A, 4A, 5A	60	40	140	90	48	102	52	24	1055
SFV-36-1AA, 2AA, 3AA, 4AA, 5AA	60	48	140	90	48	102	52	24	1055
SFV-42-1A, 2A, 3A, 4A, 5A	72	40	140	90	48	102	52	24	1055
SFV-42-1AA, 2AA, 3AA, 4AA, 5AA	72	48	140	90	48	102	52	24	1055
SFV-48-1A, 2A, 3A, 4A, 5A	84	40	126	90	72	88	52	30	1126
SFV-48-1AA, 2AA, 3AA, 4AA, 5AA	84	48	126	90	72	88	52	30	1126
SFV-54-1A, 2A, 3A, 4A, 5A	90	40	134	90	72	96	52	30	1164
SFV-54-1AA, 2AA, 3AA, 4AA, 5AA	90	48	134	90	72	96	52	30	1164
SFV-60-1A, 2A, 3A, 4A, 5A									
SFV-60-1AA, 2AA, 3AA, 4AA, 5AA									
SFV-80-1A, 2A, 3A, 4A, 5A									
SFV-80-1AA, 2AA, 3AA, 4AA, 5AA									
SFV-100-1A, 2A, 3A, 4A, 5A									
SFV-100-1AA, 2AA, 3AA, 4AA, 5AA									

Please consult the Aeroacoustic Engineering Department for assistance on these sizes

MODEL IB For Fans With Inlet Boxes

The internal configuration of this model silencer is designed so that the silencer exit matches the fan inlet box thereby eliminating the need for an separate, expensive transition piece. Each silencer's discharge flange is customized to fit your fans inlet box and bolt pattern. The silencer includes $\frac{3}{4}$ " galvanized inlet screen, carbon steel silencer section, standard red oxide primer and flanged discharge that is drilled to match your inlet box. Our Model IB, as well as all other models, can be customized to your application with accessories such as rainhoods, filter assemblies, piezometer tubes and velocity tubes, (used for measuring air flow) lifting lugs, support pads and custom paint specifications.

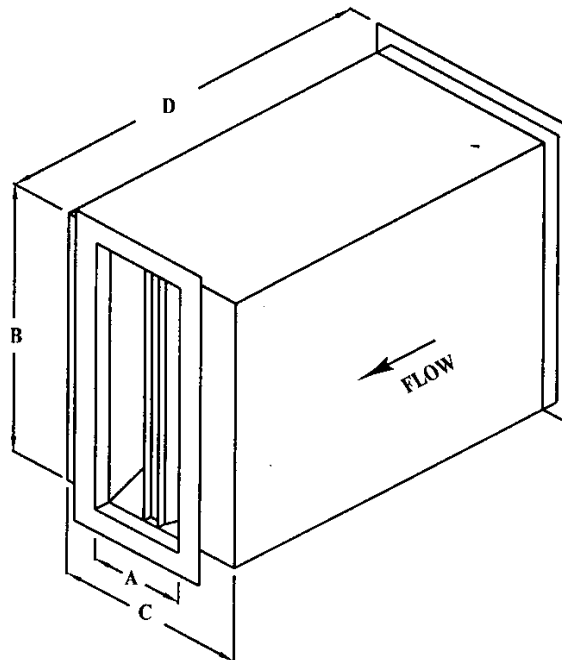
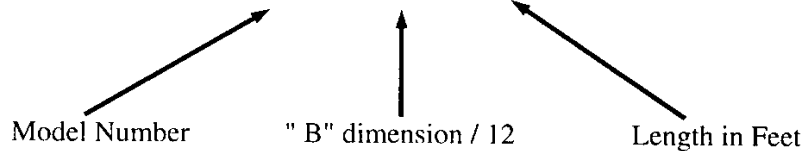
For Large Fans, A Special Model IB Fan Silencer Should Be Used

Since the cost of even a few decibels of noise reduction is high with large fans it pays to have us tailor the silencer to the exact requirements of the fan. When the silencer flow exceeds 200,000 CFM or temperature exceeds 250° please contact the Aeroacoustic® Corporation or forward the following information:

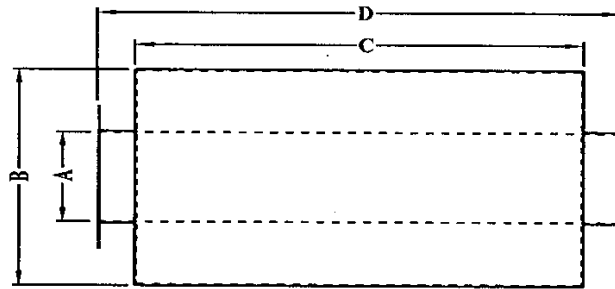
- a) Fan size, make, RPM, ΔP , wheel diameter, number of blades, and BHP
- b) Inlet box or fan inlet size dimensions
- c) CFM, inlet air density and inlet air temperature
- d) Allowable fan ΔP
- e) Acoustic criterion required Example: 85dBA @ 3 feet
- f) Fan noise generation by octave band (available from the fan manufacturer)

EXAMPLE

IB30 - 8.2 - 3



TUBULAR INDUSTRIAL SILENCERS

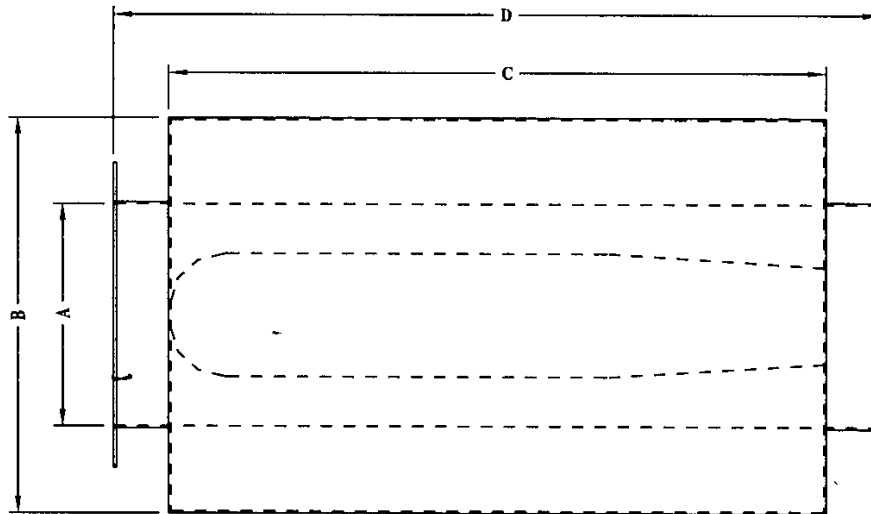


Acroacoustic "Silentflow"® Tubular Silencers are used where noise reduction is required, especially at low frequencies, combined with very low pressure drop. Silencers are supplied in standard connection sizes from 4" to 60". They are supplied in 4 Series (ST inlet and ST outlet, CB inlet and CB outlet, IC inlet and AD outlet). The ST (inlet & outlet) and CB (inlet & outlet) Series have 3 standard lengths, 2 standard outside diameters giving 12 possible choices in acoustic performance for each connection size. The IC inlet and AD outlet series tubulars have 5 standard lengths and 2 standard outside diameters giving 10 possible choices in acoustic performance for each connection size.

SERIES ST TUBULARS												
INLET AND OUTLET TUBULAR WEIGHTS AND DIMENSIONS												
MODEL	A	B	C			D			SHELL	WEIGHT		
4-TA-2A, 3A, 5A	4	10	24	36	60	30	42	66	12	45	62	96
4-TA-2B, 3B, 5B		16								75	103	156
5-TA-2A, 3A, 5A	5	12	24	36	60	30	42	66	12	56	77	118
5-TA-2B, 3B, 5B		18								88	120	184
6-TA-2A, 3A, 5A	6	14	24	36	60	30	42	66	12	68	92	141
6-TA-2B, 3B, 5B		20								101	138	210
7-TA-2A, 3A, 5A	7	14	24	36	60	30	42	66	12	69	93	142
7-TA-2B, 3B, 5B		20								102	139	212
8-TA-2A, 3A, 5A	8	16	24	36	60	30	42	66	12	80	109	165
8-TA-2B, 3B, 5B		22								116	157	238
9-TA-2A, 3A, 5A	9	16	24	36	60	30	42	66	12	81	109	166
9-TA-2B, 3B, 5B		22								117	157	239
10-TA-2A, 3A, 5A	10	18	24	36	60	30	42	66	12	93	125	190
10-TA-2B, 3B, 5B		24								131	176	266
12-TA-2A, 3A, 5A	12	20	24	36	60	30	42	66	12	106	142	215
12-TA-2B, 3B, 5B		26								145	195	293
14-TA-3A, 5A, 7A	14	24	36	60	84	42	66	90	12	176	265	355
14-TA-3B, 5B, 7B		30								234	351	467
16-TA-3A, 5A, 7A	16	26	36	60	84	42	66	90	12	194	291	388
16-TA-3B, 5B, 7B		32								253	379	505
18-TA-3A, 5A, 7A	18	28	36	60	84	42	66	90	12	211	317	422
18-TA-3B, 5B, 7B		34								273	408	543
20-TA-3A, 5A, 7A	20	30	36	60	84	42	66	90	12	229	342	456
20-TA-3B, 5B, 7B		36								293	437	581

SERIES ST INLET AND OUTLET TUBULAR WEIGHTS AND DIMENSIONS												
MODEL	A	B	C			D			SHELL	WEIGHT		
22-TA-3A, 5A, 7A	22	34	36	60	84	42	66	90	12	268	400	531
22-TA-3B, 5B, 7B		40								337	500	664
24-TA-3A, 5A, 7A	24	36	36	60	84	42	66	90	12	290	431	571
24-TA-3B, 5B, 7B		42								362	535	707
26-TA-5A, 7A, 10A	26	38	60	84	120	66	90	126	12	458	607	830
26-TA-5B, 7B, 10B		44								565	747	1020
28-TA-5A, 7A, 10A	28	40	60	84	120	66	90	126	12	485	642	878
28-TA-5B, 7B, 10B		46								595	786	1073
30-TA-5A, 7A, 10A	30	44	60	84	120	66	90	126	12	549	726	991
30-TA-5B, 7B, 10B		50								665	877	1196
32-TA-5A, 7A, 10A	32	46	60	84	120	66	90	126	3/16	577	762	1041
32-TA-5B, 7B, 10B		52								696	918	1251
34-TA-5A, 7A, 10A	34	48	60	84	120	66	90	126	3/16	605	799	1091
34-TA-5B, 7B, 10B		54								727	959	1306
36-TA-5A, 7A, 10A	36	50	60	84	120	66	90	126	3/16	633	836	1140
36-TA-5B, 7B, 10B		56								758	999	1361
38TA-5A, 7A, 10A	38	54	60	84	120	66	90	126	3/16	703	927	1264
38-TA-5B, 7B, 10B		60								834	1099	1495
40-TA-5A, 7A, 10A	40	56	60	84	120	66	90	126	3/16	732	965	1315
40-TA-5B, 7B, 10B		62								867	1141	1551
42-TA-5A, 7A, 10A	42	58	60	84	120	66	90	126	3/16	761	1003	1367
42-TA-5B, 7B, 10B		64								989	1182	1608
44-TA-5A, 7A, 10A	44	60	60	84	120	66	90	126	3/16	790	1041	1418
44-TA-5B, 7B, 10B		66								931	1224	1664
46-TA-5A, 7A, 10A	46	64	60	84	120	66	90	126	3/16	866	1140	1552
46-TA-5B, 7B, 10B		70								1014	1331	1808
48-TA-5A, 7A, 10A	48	66	60	84	120	66	90	126	3/16	896	1180	1605
48-TA-5B, 7B, 10B		72								1047	1375	1866
50-TA-5A, 7A, 10A	50	68	60	84	120	66	90	126	3/16	926	1219	1658
50-TA-5B, 7B, 10B		74								1080	1418	1925
52-TA-5A, 7A, 10A	52	70	60	84	120	66	90	126	3/16	957	1258	1711
52-TA-5B, 7B, 10B		76								1113	1461	1983
54-TA-5A, 7A, 10A	54	74	60	84	120	66	90	126	3/16	1039	1365	1855
54-TA-5B, 7B, 10B		80								1202	1576	2137
56-TA-5A, 7A, 10A	56	76	60	84	120	66	90	126	3/16	1070	1406	1910
56-TA-5B, 7B, 10B		82								1236	1620	2197
58-TA-5A, 7A, 10A	58	78	60	84	120	66	90	126	3/16	1101	1447	1965
58-TA-5B, 7B, 10B		84								1271	1665	2257
60-TA-5A, 7A, 10A	60	80	60	84	120	66	90	126	3/16	1132	1487	2020
60-TA-5B, 7B, 10B		86								1305	1710	2317

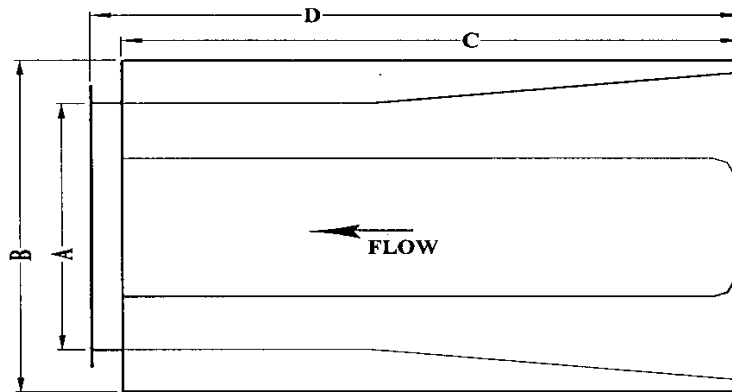
SERIES CB TUBULAR



INLET AND OUTLET TUBULAR WEIGHTS AND DIMENSIONS												
MODEL	A	B	C			D			SHELL	WEIGHT		
12-TB-2A, 3A, 5A	12	20	23	36	60	30	42	66	12	115	155	236
12-TB-2B, 3B, 5B		26								154	208	315
14-TB-3A, 5A, 7A	14	24	36	60	84	42	66	90	12	196	297	398
14-TB-3B, 5B, 7B		30								253	382	511
16-TB-3A, 5A, 7A	16	26	36	60	84	42	66	90	12	213	322	431
16-TB-3B, 5B, 7B		32								273	411	548
18-TB-3A, 5A, 7A	18	28	36	60	84	42	66	90	12	238	359	480
18-TB-3B, 5B, 7B		34								300	450	601
20-TB-3A, 5A, 7A	20	30	36	60	84	42	66	90	12	256	358	514
20-TB-3B, 5B, 7B		36								320	479	639
22-TB-3A, 5A, 7A	22	34	36	60	84	42	66	90	12	303	454	606
22-TB-3B, 5B, 7B		40								372	555	738
24-TB-3A, 5A, 7A	24	38	36	60	84	42	66	90	12	326	486	645
24-TA-3B, 5B, 7B		44								397	589	782

MODEL TB INLET AND OUTLET TUBULAR WEIGHTS AND DIMENSIONS												
MODEL	A	B	C			D			SHELL	WEIGHT		
26-TB-5A, 7A, 10A	26	38	60	84	120	66	90	126	12	526	699	958
26-TB-5B, 7B, 10B		44								633	839	1148
28-TB-5A, 7A, 10A	28	40	60	84	120	66	90	126	12	553	734	1006
28-TB-5B, 7B, 10B		46								663	878	1201
30-TB-5A, 7A, 10A	30	44	60	84	120	66	90	126	12	632	837	1146
30-TB-5B, 7B, 10B		50								748	989	1351
32-TB-5A, 7A, 10A	32	46	60	84	120	66	90	126	3/16	660	874	1196
32-TB-5B, 7B, 10B		52								779	1030	1406
34-TB-5A, 7A, 10A	34	48	60	84	120	66	90	126	3/16	704	932	1274
34-TB-5B, 7B, 10B		54								826	1092	1490
36-TB-5A, 7A, 10A	36	50	60	84	120	66	90	126	3/16	732	969	1324
36-TB-5B, 7B, 10B		56								857	1132	1545
38-TB-5A, 7A, 10A	38	54	60	84	120	66	90	126	3/16	819	1082	1478
38-TB-5B, 7B, 10B		60								951	1254	1709
40-TB-5A, 7A, 10A	40	56	60	84	120	66	90	126	3/16	866	1145	1562
40-TB-5B, 7B, 10B		62								1001	1320	1798
42-TB-5A, 7A, 10A	42	58	60	84	120	66	90	126	3/16	915	1208	1648
42-TB-5B, 7B, 10B		64								1053	1388	1889
44-TB-5A, 7A, 10A	44	60	60	84	120	66	90	126	3/16	944	1246	1700
44-TB-5B, 7B, 10B		66								1085	1430	1946
46-TB-5A, 7A, 10A	46	64	60	84	120	66	90	126	3/16	1041	1373	1870
46-TB-5B, 7B, 10B		70								1189	1564	2127
48-TB-5A, 7A, 10A	48	66	60	84	120	66	90	126	3/16	1071	1412	1924
48-TB-5B, 7B, 10B		72								1222	1607	2185
50-TB-5A, 7A, 10A	50	68	60	84	120	66	90	126	3/16	1123	1480	2016
50-TB-5B, 7B, 10B		74								1277	1679	2282
52-TB-5A, 7A, 10A	52	70	60	84	120	66	90	126	3/16	1154	1520	2069
52-TB-5B, 7B, 10B		76								1310	1722	2340
54-TB-5A, 7A, 10A	54	74	60	84	120	66	90	126	3/16	1259	1657	2253
54-TB-5B, 7B, 10B		80								1422	1867	2535
56-TB-5A, 7A, 10A	56	76	60	84	120	66	90	126	3/16	1290	1698	2308
56-TB-5B, 7B, 10B		82								1457	1912	2595
58-TB-5A, 7A, 10A	58	78	60	84	120	66	90	126	3/16	1346	1770	2406
58-TB-5B, 7B, 10B		84								1515	1988	2698
60-TB-5A, 7A, 10A	60	80	60	84	120	66	90	126	3/16	1377	1811	2461
60-TB-5B, 7B, 10B		86								1550	2033	2758

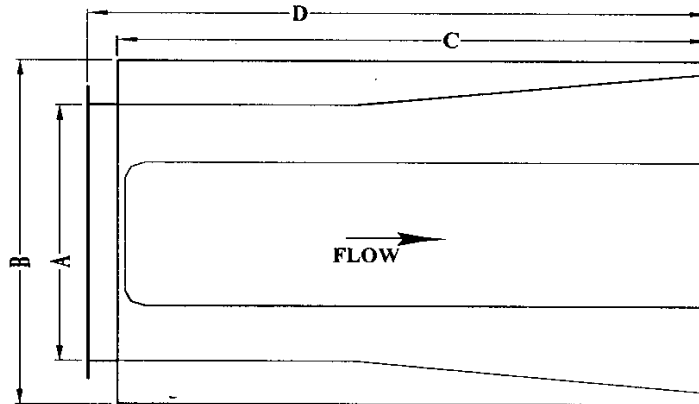
SERIES AD TUBULARS



MODEL TD OUTLET TUBULAR WEIGHTS AND DIMENSIONS																		
MODEL	A	B	C					D					SHELL	WEIGHT				
12-TD-0A, 2A, 3A, 4A, 5A	12	21	12	36	48	60	72	15	39	51	63	75	12	78	162	204	246	288
12-TD-0B, 2B, 3B, 4B, 5B		12												106	216	271	326	381
14-TD-0A, 2A, 3A, 4A, 5A	14	24	14	38	50	62	74	17	41	53	65	77	12	103	201	251	300	350
14-TD-0B, 2B, 3B, 4B, 5B		30												134	261	324	388	451
16-TD-0A, 2A, 3A, 4A, 5A	16	26	16	40	52	64	76	19	43	55	67	79	12	121	228	281	334	388
16-TD-0B, 2B, 3B, 4B, 5B		32												157	292	360	427	495
18-TD-0A, 2A, 3A, 4A, 5A	18	29	18	42	54	66	78	21	45	57	69	81	12	151	273	334	396	457
18-TD-0B, 2B, 3B, 4B, 5B		35												191	344	420	496	572
20-TD-0A, 2A, 3A, 4A, 5A	20	31	20	44	56	68	80	23	47	59	71	83	12	172	303	368	433	498
20-TD-0B, 2B, 3B, 4B, 5B		37												217	378	459	539	620
22-TD-0A, 2A, 3A, 4A, 5A	22	34	22	46	58	70	82	25	49	61	73	85	12	208	355	428	501	575
22-TD-0B, 2B, 3B, 4B, 5B		40												258	437	526	615	704
24-TD-0A, 2A, 3A, 4A, 5A	24	36	24	48	60	72	84	27	51	63	75	87	12	238	393	470	548	625
24-TD-0B, 2B, 3B, 4B, 5B		42												293	481	574	668	762
26-TD-0A, 2A, 3A, 4A, 5A	26	39	26	50	62	74	86	29	53	65	77	89	12	280	452	538	624	709
26-TD-0B, 2B, 3B, 4B, 5B		45												341	546	649	752	854
28-TD-0A, 2A, 3A, 4A, 5A	28	41	28	52	64	76	88	31	55	67	79	91	12	310	489	579	669	759
28-TD-0B, 2B, 3B, 4B, 5B		47												375	589	696	804	911
30-TD-0A, 2A, 3A, 4A, 5A	30	44	30	54	66	78	90	33	57	69	81	93	12	358	555	654	752	851
30-TD-0B, 2B, 3B, 4B, 5B		50												430	662	779	895	1012

MODEL TB INLET AND OUTLET TUBULAR WEIGHTS AND DIMENSIONS																		
MODEL	A	B	C					D					SHELL	WEIGHT				
32-TD-0A, 2A, 3A, 4A, 5A	32	46											3/16	391	596	699	801	904
32-TD-0B, 2B, 3B, 4B, 5B		52	32	56	68	80	92	35	59	71	83	95		468	709	830	951	1052
34-TD-0A, 2A, 3A, 4A, 5A	34	49											3/16	446	669	781	892	1004
34-TD-0B, 2B, 3B, 4B, 5B		55	34	58	70	82	94	37	61	73	85	97		529	790	920	1051	1181
36-TD-0A, 2A, 3A, 4A, 5A	36	51											3/16	482	714	830	945	1061
36-TD-0B, 2B, 3B, 4B, 5B		57	36	60	72	84	96	39	63	75	87	99		571	841	976	1111	1246
38-TD-0A, 2A, 3A, 4A, 5A	38	54											3/16	544	794	919	1044	1169
38-TD-0B, 2B, 3B, 4B, 5B		60	38	62	74	86	98	41	65	77	89	101		640	929	1074	1219	1364
40-TD-0A, 2A, 3A, 4A, 5A	40	56											3/16	598	862	994	1160	1259
40-TD-0B, 2B, 3B, 4B, 5B		62	40	64	76	88	100	43	67	79	91	103		699	1004	1156	1309	1461
42-TD-0A, 2A, 3A, 4A, 5A	42	59											3/16	668	952	1094	1236	1378
42-TD-0B, 2B, 3B, 4B, 5B		65	42	66	78	90	102	45	69	81	93	105		777	1102	1265	1427	1590
44-TD-0A, 2A, 3A, 4A, 5A	44	61											3/16	713	1005	1151	1297	1443
44-TD-0B, 2B, 3B, 4B, 5B		67	44	68	80	92	104	47	71	83	95	107		828	1162	1329	1496	1664
46-TD-0A, 2A, 3A, 4A, 5A	46	64											3/16	791	1103	1259	1415	1571
46-TD-0B, 2B, 3B, 4B, 5B		70	46	70	82	94	106	49	73	85	97	109		913	1269	1446	1624	1802
48-TD-0A, 2A, 3A, 4A, 5A	48	66											3/16	840	1160	1320	1481	1641
48-TD-0B, 2B, 3B, 4B, 5B		72	48	72	84	96	108	51	75	87	99	111		968	1333	1515	1698	1880
50-TD-0A, 2A, 3A, 4A, 5A	50	69											3/16	925	1266	1437	1607	1778
50-TD-0B, 2B, 3B, 4B, 5B		75	50	74	86	98	110	53	77	89	101	113		1061	1448	1641	1834	2028
52-TD-0A, 2A, 3A, 4A, 5A	52	71											3/16	978	1327	1502	1677	1852
52-TD-0B, 2B, 3B, 4B, 5B		77	52	76	88	100	112	55	79	91	103	115		1121	1517	1715	1912	2110
54-TD-0A, 2A, 3A, 4A, 5A	54	74											3/16	1071	1442	1627	1813	1998
54-TD-0B, 2B, 3B, 4B, 5B		80	54	78	90	102	114	57	81	93	105	117		1222	1640	1849	2059	2268
56-TD-0A, 2A, 3A, 4A, 5A	56	76											3/16	1128	1507	1697	1887	2076
56-TD-0B, 2B, 3B, 4B, 5B		82	56	80	92	104	116	59	83	95	107	119		1286	1714	1927	2141	2355
58-TD-0A, 2A, 3A, 4A, 5A	58	79											3/16	1229	1630	1831	2031	2232
58-TD-0B, 2B, 3B, 4B, 5B		85	58	82	94	106	118	61	85	97	109	121		1396	1846	2072	2297	2522
60-TD-0A, 2A, 3A, 4A, 5A	60	81											3/16	1290	1700	1905	2110	2315
60-TD-0B, 2B, 3B, 4B, 5B		87	60	84	96	108	120	63	87	99	111	123		1464	1924	2154	2384	2614

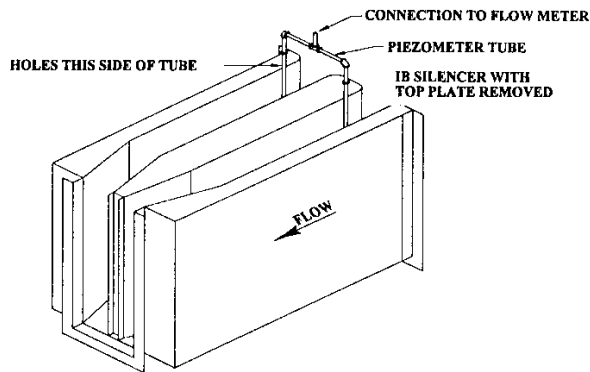
SERIES IC TUBULARS



MODEL TC INLET TUBULAR WEIGHTS AND DIMENSIONS																		
MODEL	A	B	C					D					SHELL	WEIGHT				
12-TC-0A, 2A, 3A, 4A, 5A	12	21	12	36	48	60	72	15	39	51	63	75	12	78	162	204	246	288
12-TC-0B, 2B, 3B, 4B, 5B		27	106	216	271	326	381											
14-TC-0A, 2A, 3A, 4A, 5A	14	24	14	38	50	62	74	17	41	53	65	77	12	103	201	251	300	350
14-TC-0B, 2B, 3B, 4B, 5B		20	134	261	324	388	451											
16-TC-0A, 2A, 3A, 4A, 5A	16	26	16	40	52	64	76	19	43	55	67	79	12	121	228	281	334	388
16-TC-0B, 2B, 3B, 4B, 5B		32	157	292	360	427	495											
18-TC-0A, 2A, 3A, 4A, 5A	18	29	18	42	54	66	78	21	45	57	69	81	12	151	273	334	396	457
18-TC-0B, 2B, 3B, 4B, 5B		35	191	344	420	496	572											
20-TC-0A, 2A, 3A, 4A, 5A	20	31	20	44	56	68	80	23	47	59	71	83	12	172	303	368	433	498
20-TC-0B, 2B, 3B, 4B, 5B		37	217	378	459	539	620											
22-TC-0A, 2A, 3A, 4A, 5A	22	34	22	46	58	70	82	25	49	61	73	85	12	208	355	428	501	575
22-YC-0B, 2B, 3B, 4B, 5B		22	258	437	526	615	704											
24-TC-0A, 2A, 3A, 4A, 5A	24	36	24	48	60	72	84	27	51	63	75	87	12	238	393	470	548	625
24-TC-0B, 2B, 3B, 4B, 5B		42	293	481	574	668	762											
26-TC-0A, 2A, 3A, 4A, 5A	26	39	26	50	62	74	86	29	53	65	77	89	12	280	452	538	624	709
26-TC-0B, 2B, 3B, 4B, 5B		45	341	546	649	752	854											
28-TC-0A, 2A, 3A, 4A, 5A	28	41	28	52	64	76	88	31	55	67	79	91	12	310	489	579	669	759
28-TC-0B, 2B, 3B, 4B, 5B		47	375	589	696	804	911											
30-TC-0A, 2A, 3A, 4A, 5A	30	44	30	54	66	78	90	33	57	69	81	93	12	358	555	654	752	851
30-TC-0B, 2B, 3B, 4B, 5B		50	430	662	779	895	1012											

MODEL TC INLET AND OUTLET TUBULAR WEIGHTS AND DIMENSIONS																		
MODEL	A	B	C					D					SHELL	WEIGHT				
32-TC-0A, 2A, 3A, 4A, 5A	32	46	32	56	68	80	92	35	59	71	83	95	3/16	391	596	699	801	904
32-TC-0B, 2B, 3B, 4B, 5B		52												468	709	830	951	1072
34-TC-0A, 2A, 3A, 4A, 5A	34	49	34	58	70	82	94	37	61	73	85	97	3/16	446	669	781	892	1004
34-TC-0B, 2B, 3B, 4B, 5B		55												529	790	920	1051	1181
36-TC-0A, 2A, 3A, 4A, 5A	36	51	36	60	72	84	96	39	63	75	87	99	3/16	482	714	830	945	1061
36-TC-0B, 2B, 3B, 4B, 5B		57												571	841	976	1111	1246
38-TC-0A, 2A, 3A, 4A, 5A	38	54	38	62	74	86	98	41	65	77	89	101	3/16	544	794	919	1044	1169
38-TC-0B, 2B, 3B, 4B, 5B		60												640	929	1074	1219	1364
40-TC-0A, 2A, 3A, 4A, 5A	40	56	40	64	76	88	100	43	67	79	91	103	3/16	598	862	994	1127	1259
40-TC-0B, 2B, 3B, 4B, 5B		62												699	1004	1156	1309	1461
42-TC-0A, 2A, 3A, 4A, 5A	42	58	42	66	78	90	102	45	69	81	93	105	3/16	651	928	1067	1205	1343
42-TC-0B, 2B, 3B, 4B, 5B		64												758	1076	1235	1395	1554
44-TC-0A, 2A, 3A, 4A, 5A	44	64	46	70	82	94	106	49	73	85	97	109	3/16	695	980	1123	1265	1408
44-TC-0B, 2B, 3B, 4B, 5B		70												808	1135	1299	1462	1626
46-TC-0A, 2A, 3A, 4A, 5A	46	64	46	70	82	94	106	49	73	85	97	109	3/16	791	1103	1259	1415	1571
46-TC-0B, 2B, 3B, 4B, 5B		70												913	1269	1446	1624	1802
48-TC-0A, 2A, 3A, 4A, 5A	48	66	48	72	84	96	108	51	75	87	99	111	3/16	840	1160	1320	1481	1641
48-TC-0B, 2B, 3B, 4B, 5B		72												968	1333	1515	1698	1880
50-TC-0A, 2A, 3A, 4A, 5A	50	68	50	74	86	98	110	53	77	89	101	113	3/16	903	1237	1404	1571	1737
50-TC-0B, 2B, 3B, 4B, 5B		74												1038	1417	1606	1796	1985
52-TC-0A, 2A, 3A, 4A, 5A	52	70	52	76	88	100	112	55	79	91	103	115	3/16	955	1297	1468	1639	1810
52-TC-0B, 2B, 3B, 4B, 5B		76												955	1297	1468	1639	1810
54-TC-0A, 2A, 3A, 4A, 5A	54	74	54	78	90	102	114	57	81	93	105	117	3/16	1071	1442	1627	1813	1998
54-TC-0B, 2B, 3B, 4B, 5B		80												1222	1640	1849	2059	2268
56-TC-0A, 2A, 3A, 4A, 5A	56	76	56	80	92	104	116	59	83	95	107	119	3/16	1128	1507	1697	1887	2076
56-TC-0B, 2B, 3B, 4B, 5B		82												1286	1714	1927	2141	2355
58-TC-0A, 2A, 3A, 4A, 5A	58	78	58	82	94	106	118	61	86	97	109	121	3/16	1202	1595	1792	1989	2185
58-TC-0B, 2B, 3B, 4B, 5B		84												1367	1810	2031	2252	2473
60-TC-0A, 2A, 3A, 4A, 5A	60	80	60	84	96	108	120	63	87	99	111	123	3/16	1262	1664	1865	2066	2266
60-TC-0B, 2B, 3B, 4B, 5B		86												1435	1886	2112	2338	2563

"EZ-Flow" Piezometer Tubes



The flow passages of the "Silentflow"® Models IB, SI and CI silencers are true venturi channels and may be used for flow measurement, thereby eliminating the need for a separate venturi. The Aeroacoustic Corporation supplies, on special order, Models IB, SI and CI silencers with built-in piezometer tubes for this purpose. Please contact the factory, or our local sales representative, for pricing on piezometer tube installations. In order to obtain a usable reading from the piezometer tube, silencers should be sized at a pressure drop of from 1.0-1.5"H₂O

Introduction

Accurate and simple, "EZ-Flow" piezometer tubes are outstanding tools for measuring flow through Aeroacoustic silencers placed at duct system inlets. Unlike pitot tubes, "EZ-Flow" tubes automatically average pressure readings at different locations within the airstream, making them much easier to use. In addition, "EZ-Flow" piezometer tubes provide greater sensitivity and reliability than traditional pitot tubes. (Piezometer tube sensitivity is approximately twice that of a comparable pitot tube.) Combined with readily available vacuum gages or differential pressure meters "EZ-Flow" tubes provide an absolute accuracy of + or - 4% and a repeatability limited only by the meter quality. Field calibration permits even greater accuracy to be obtained if necessary. When piezometer tubes are supplied installed within an Aeroacoustic inlet silencer only one connection needs

Theory

Aeroacoustic "EZ-Flow" piezometer tubes operate according to a simplified version of Bernoulli's Equation. For any two points at the same elevation in a flow stream:

$$P_{V1} + P_{S1} = P_{V2} + P_{S2} + \text{Losses}_{1-2}$$

The velocity pressure plus the static pressure at point 1 equals the velocity pressure plus the static pressure at point 2 plus any losses encountered by the fluid as it moves from point 1 to 2. The Losses₁₋₂ term represents inlet losses as well as any losses due to friction or fittings. For point 1 in open atmosphere, a distance from the inlet of the silencer, and point 2 within the silencer immediately after the piezometer tube:

$$P_{V1} = 0; \quad \text{Motionless air}$$

$$P_{S1} = 0; \quad \text{Gage pressure}$$

$$\text{Losses}_{1-2} = (C_2 \text{ Inlet} + C_2 \text{ Friction} + C_2 \text{ Tube Drag}) \cdot P_{V2}$$

$$\text{Losses}_{1-2} = \sum C_2 \cdot P_{V2}$$

$$-P_{S2} = P_{V2} + \sum C_2 \cdot P_{V2}$$

so

$$-P_{S2} = (1 + \sum C_2) \cdot P_{V2}$$

and

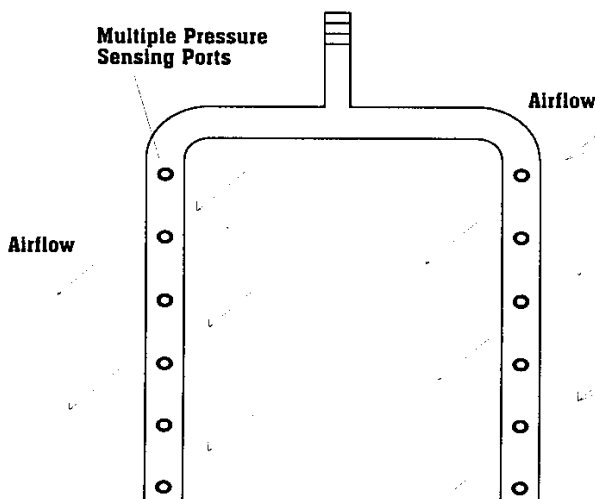
$$-P_{S2}$$

$$P_{V2} = \frac{-P_{S2}}{(1 + \sum C_2)}$$

With the piezometer tube properly attached to a vacuum or differential pressure meter, $-P_{S2}$ is read directly from the meter and may be defined as P_x . This allows the equation to be rewritten as:

$$P_{V2} = \frac{P_x}{(1 + \sum C_2)}$$

Dual Pass Aeroacoustic "EZ-Flow" Piezometer Tube

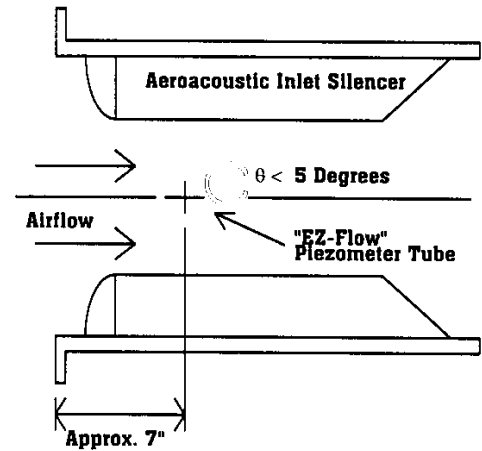


Installation

"EZ-Flow" piezometer tubes inserted into Aeroacoustic inlet silencers during fabrication require only two simple steps before use:

- 1) Ensure that the holes in the piezometer tube do not face upstream. They should not be visible while looking into the inlet of the silencer. The holes should be within 5° of being parallel to the silencer slot.
- 2) Connect the piezometer to the pressure gage. Typically a vacuum gage is used and the threaded end of the piezometer tube (1/2" NPT) is connected to the gage via tubing. The vacuum gage reading will be P_x . If a differential pressure meter must be used the high pressure connection is left open to atmosphere. The low pressure connection is attached to the threaded outlet on the piezometer tube and again the meter reading will be P_x .

Single Pass Piezometer Tube Cross Section



Sample Calculation

A customer purchases a large inlet box (IB) silencer to handle 150,000 CFM of air @ 0.073 lbm/ft³ density. The calibration factor, C_{CAL} , found on the silencer nameplate and silencer submittal is 70.902. The equation used to determine the flow through the silencer is:

$$CFM = C_{CAL} \cdot P_x^{1/2} \cdot (0.075 / \rho_{flow})^{1/2}$$

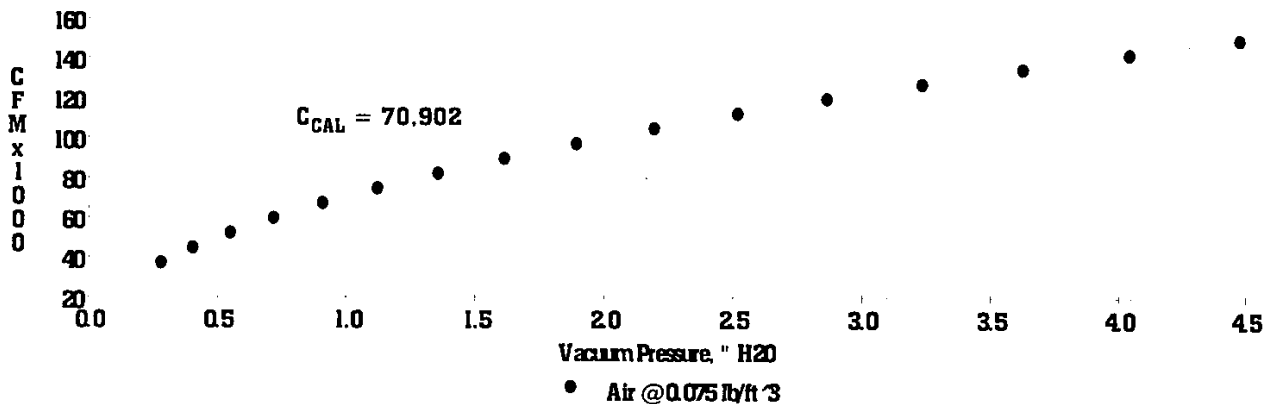
For a pressure reading of 4.5" water column:

$$CFM = 70.902 \cdot 4.5^{1/2} \cdot (0.075 / 0.073)^{1/2}$$

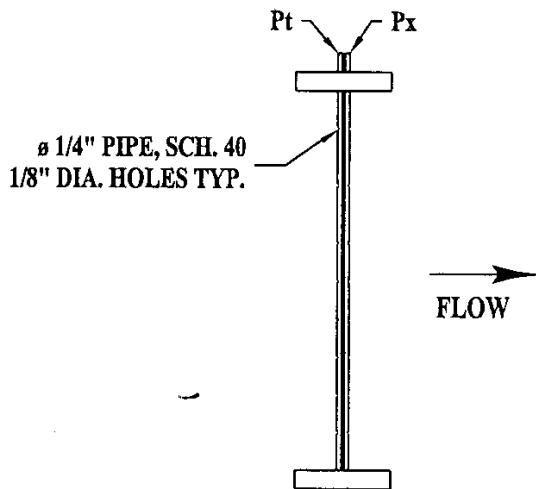
$$Flow = 152,452 \text{ CFM} \approx 152,000 \text{ CFM}$$

At full flow a gage with a range of 0 to 5" water column would suffice. Assuming a density equal to the density of air at standard conditions may result in a large discrepancy. Ignoring differences in density between air at 0° F and 70° F results in a 7% error. It should be noted that the flow density, ρ_{flow} , should be the density of the airstream as it passes through the silencer, not the fan. "EZ-Flow" piezometer tubes are only suited for

Flow Reading With an "EZ-Flow" Tube
Vacuum Pressure (" H₂O) vs. FLOW (CFM)



"EZ-Flow" Velocity Tubes



VELOCITY TUBE
FIGURE 1

The flow passages of "Silentfow"® Model IB, CI, SI and DF silencers are true venturi channels and may be used for flow measurement, and thereby eliminating the need for a separate venturi. The Aeroacoustic Corporation supplies, on special order, IB, SI, CI and DF silencers with built-in velocity tubes. The E-Z Flow Velocity Tube is designed for measuring the airflow velocity with higher sensitivity and self-averaging of flow velocity readings. This is made up of dual tubes (see figure 1). The front tube measures the total pressure P_t . The back tube measures the drag loss plus the static pressure as defined as P_x .

$$\begin{aligned}\Delta P &= P_t \text{ (front tube)} - P_x \text{ (back tube)} \\ &= (P_s + P_v) - (P_s - P_{dr}) \\ &= P_v + P_{dr}\end{aligned}$$

For the dual tubes at the air path center the drag coefficient of dual tubes is approximately 0.7

$$\begin{aligned}P_{dr} &= 0.7 P_v \\ \text{so, } \Delta P &= P_v + 0.7 P_v \\ &= 1.7 P_v\end{aligned}$$

The average airflow velocity V_{ave} can be obtained through the following relation,

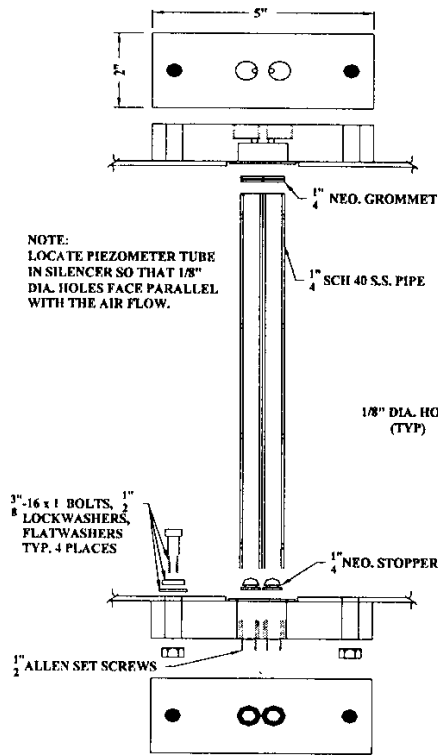
$$V_{ave} = 4000 (P_v)^{1/2} = 4000 (\Delta P / 1.7)^{1/2}$$

Major advantages of Aeroacoustic's "E-Z" Flow Velocity Tubes are:

- a) Higher sensitivity of velocity readings. The sensitivity is 1.7 times higher than a pitot tube
- b) The velocity tube has 1/3 the pressure drop of a piezometer tube
- c) The velocity tube can be used at the discharge flow of our silencers or ductwork
(Piezometer tubes can only be used on the inlet silencers)
- d) Velocity tubes can be used on ducted systems
(Piezometer tubes can only be used on non-ducted inlet)

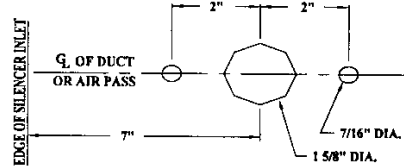
INSTALLATION

"E-Z" Flow Velocity Tubes inserted into Aeroacoustic Silencers require one simple step before use: Connect the velocity tube to a differential pressure gage. (not standard equipment). The front tube (Pt) is connected to the pressure side of the gage. The back tube (Px) is connected to the suction side of the gage. Gages with a range of 0 to 2.0 inches of water work well with lower CFM fans (Dwyer-- Differential Pressure Transmitter Model #604D-1 with 4-20 mA output). On higher pressure fans a gage with a range from 0 to 10. inches of water should be used (Dwyer-- Model # 604D-2). Minihelic differential pressure transmitters to match the silencer's CFM may be ordered with velocity tube from Aeroacoustic or directly from Dwyer Instruments Inc.



IF VELOCITY TUBES AND BLOCKS ARE ALREADY IN SILENCER, GOTO STEP #7.

- 1) DRILL 1 5/8" HOLE IN CENTER OF DUCT OR AIR PASS OF SILENCER 7" FROM CENTER OF 1 5/8" HOLE. (SEE VELOCITY TUBE DRILLED PATTERN)
- 2) DRILL 2-7/16" HOLES ON CENTER, PARALLEL WITH AIR FLOW 2" FROM CENTER OF 1 5/8" HOLE. (SEE VELOCITY TUBE DRILLED PATTERN)
- 3) USING 3/8" BOLTS, FLATWASHERS & LOCKWASHERS FROM THE INSIDE, BOLT CLOSED SIDE ALUMINUM VELOCITY BLOCK ON OUTSIDE OF DUCT OR SILENCER. (THIS IS BLOCK WITH 1/2" SET SCREWS)
- 4) INSERT 1/4" RUBBER STOPPERS ON ONE END OF VELOCITY TUBE. SLIDE THROUGH OPEN 1 5/8" HOLE AND INTO CLOSED END VELOCITY TUBE BLOCK. (VELOCITY TUBE SHOULD EXTEND 1/4" BEYOND DUCT, IF NOT, TRIM TUBE TO FIT.)
- 5) INSERT 1/4" RUBBER GROMMET INTO OPEN END VELOCITY TUBE BLOCK. LINE UP VELOCITY TUBE WITH BLOCK AND BOLT BLOCK ON SAME AS CLOSED END BLOCK.
- 6) TURN 1/2" SET SCREWS CLOCK-WISE UNTIL RUBBER STOPPER AND GROMMET ARE COMPRESSED.
- 7) INSTALL 1/4" SWIVEL ELBOWS INTO OPEN SIDE VELOCITY TUBE BLOCK (IF 2, 3, 4, ETC. TUBES ARE USED, INSTALL 1/4" SWIVEL TEES IN THESE BLOCKS AND CONNECT WITH TUBING). INSTALL METERING DEVICE TO LAST FITTING.



SAMPLE CALCULATION

A customer purchases a large inlet box (IB) silencer to handle 150,000 CFM of air @ 0.073 lbm/ft³ density. The calibration factor, C_{cal}, found on the silencer submittal is 70,902. The equation used to determine the flow through the silencer is:

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At full flow a gage with a range of 0 to 5" water column would suffice. Assuming a density equal to the density of air at standard conditions may result in a large discrepancy. Ignoring differences in density between air at 0° and 70° F results in a 7% error. It should be noted that the density, ρ_{flow} , should be the density of the airstream as it passes through the silencer, not the fan.

Accessories and Options

Unless otherwise specified, all steel used in Aeroacoustic® products are prepared according to SSPC-SP1 (STEEL STRUCTURES PAINTING COUNCIL) standards prior to painting and then prime painted with our standard universal red oxide alkyd primer.

ENAMEL FINISH

Aeroacoustic® Corporation's industrial enamel finish is CheckRust Instant Enamel™ Series IE-0200 as manufactured by Insul-X Protective Coatings. CheckRust Instant Enamel is a low VOC, high gloss alkyd based enamel. It has a high resistance to fungus, salt air and alkalis. It is available in 25 stock colors and tint bases in order to custom blend over 2000 OEM colors. Contact Aeroacoustic® Corporation for available color choices and pricing.

SANDBLASTING AND EPOXY FINISH

The Aeroacoustic® Corporation has the capability to provide sandblasting. Our epoxy paint system is CheckRust Insl-Tile Activated Epoxy Primer (EP-5065 gray or EP-5050 red oxide) with Insul-Tile Series EP-5000 Epoxy finish. RustCheck Epoxy is a two component, activated polyamide that is flexible and resistant to fumes or splashes from solvents, acids, alkalis and moisture. It is available in 14 stock colors and tint bases in order to custom blend over 3000 colors.

SANDBLASTING AND INORGANIC ZINC PRIMER

The Aeroacoustic® Corporation also has the capability to provide API 673 finish standards with SSPC-SP6 sandblasting and inorganic zinc prime. Our standard inorganic zinc prime is "Metal-Hide" (97-675/97-673) manufactured by Pittsburgh Paints. Other paint systems are available upon request. Contact Aeroacoustic Engineering Department for pricing and availability.

OTHER OPTIONS AND ACCESSORIES

- Square to square transition
- Square to round transition
- 304 stainless steel construction
- 316 stainless steel construction
- Stainless steel internal construction
 - Galvanized construction
- Mounting hardware and gasket
- Stainless steel inlet screen
- Stainless steel nameplate
- Side removable baffles
- End removable baffles
 - Mounting pads
 - Support legs
 - Lifting lugs

Aeroacoustic Corporation

The Source for a Broad Line of Industrial Silencers

To meet modern day requirements for the reduction of objectionable industrial noise by the government (OSHA) as well as for improvement of employee efficiency, Aeroacoustic has designed a broad line of industrial silencers for a wide variety of applications.

AXIAL FLOW FANS

Series of silencers designed specifically to match the acoustic characteristics of controllable blade angle axial flow fans.

COOLING TOWER

A fan silencer, splitter type for cooling tower inlet and exhaust noise reduction

POSITIVE DISPLACEMENT BLOWERS AND COMPRESSORS

A tubular silencer for screw, lobe, vane, and piston type of equipment

HIGH PRESSURE GAS DISCHARGE

Blow-off silencers for power control valves, pressure relief valves, wind tunnel discharges, pneumatic actuators exhaust, etc.

LOW PRESSURE GAS DISCHARGES

Several types are available including blow-off tubulars, splitter, and stack stuffers. If any questions regarding application, consult the Aeroacoustic Sales or Engineering Department.

STACK NOISE AND SCRUBBERS

Designed to drop into a stack which is connected to noise generating machine.

GAS TURBINES

Inlet or high temperature exhaust Silentflow® silencers are available as OEM or replacement on all sizes of gas turbines.

JET ENGINE TEST CELLS

Tubular test cell exhaust silencers are available with an experience factor of over 20 years of in-place operation without major maintenance. Splitter type test cell inlet units are also available.

ENCLOSURES AND PORTABLE PERSONNEL ROOMS

Silentrooms® are available in panels for construction of partial enclosures, walls or complete rooms

ENCLOSURES FOR DIESEL POWERED GENERATOR AND COMPRESSOR SETS

Enclosures include acoustic housing, cooling air inlet, discharge silencer and personal doors

TEFC MOTORS

Silentflow® electric motor silencers model EM to reduce TEFC electric motor inlet noise.

FAN SILENCER CONSTRUCTION

Fan inlet silencers are subject to high internal negative pressures, especially if the inlet screen becomes blocked or iced up due to exposure to the weather. Vibrating forces are also at work on the silencer since it is attached directly to the fan. Therefore, a fan silencer must be of rugged construction, with heavy gage shells and internals, and the acoustic fill must be water resistant. The light gage silencers used in air conditioning systems (duct silencers) are definitely unsuitable for use on high pressure fans. Aeroacoustic fan silencers are of rugged construction. The shells of the Model IB silencers for use on fan inlet boxes are of approximately the same gage as the inlet box, i.e., from 12 gage to ¼" plate. The shells of the Model CI, SI and DF silencers are from 12 gage to 7 gage, primed hot rolled steel. All acoustic packing is water resistant wool wrapped with fiberglass cloth. The Model IB, CI and SI silencers come equipped with ¾" galvanized steel bird screen if no rainhood is ordered. IB, CI and SI rainhoods come equipped with ¾" galvanized steel bird screen.

SUGGESTED FAN SILENCER SPECIFICATIONS

The silencer is to be an Aeroacoustic Model _____ fan silencer as manufactured by the Aeroacoustic Corp.

The shell gage is to be _____ (see table)

The internals are to be galvanized steel

The acoustic fill is to be rigid, resin bonded, water resistant and wrapped in fiberglass cloth

For fans without inlet boxes, ¾" galvanized steel birdscreen, bolted access plate for mounting to fan inlet are supplied

For fans with inlet boxes, ¾" galvanized steel birdscreen and transition to the inlet box is to be incorporated in the silencer

For discharge silencers, a flanged inlet and outlet are supplied

Silencer shall have a ΔP of _____ inches of water at a flow of _____ CFM at _____ density

For inlet silencers, ΔP is defined as the difference between the atmospheric static pressure and the silencer discharge total head pressure.

For fan discharge silencers, ΔP is defined as the difference between the fan discharge total head pressure and the atmospheric pressure

The silencer must have the following acoustic performance at the stated flow:

Octave Band CF, KHz: .063 .125 .25 .5 1 2 4 8

NIL Silencer, dB: _____

Sales & Engineering
Florida
Phone: 904-731-3577
FAX: 904-739-5680



Sales, Engineering & Manufacturing
Roselle, New Jersey 07203
Phone: 908-241-8600