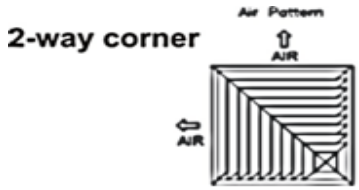
L-AV SERIES HOW TO SELECT

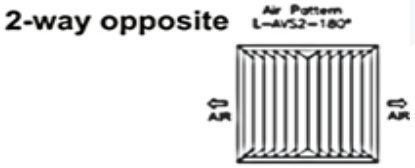
SELECTION PROCEDURE

Laminaire offers two different types of mounting frames: the L-AVF which is the Flush mounted and the L-AVS which is the surf mounted.

The area to be served by a diffuser should be divided into equal squares and when possible these areas should not exceed twice the height.

We also offer the 3-way and the 2-way pattern which we can use to compensate different locations. The 2-way pattern is available in opposite pattern and in 90 Degree pattern (Corner).





SIZING PROCEDURE

1. Select the required pattern to cover the area to be conditioned.
2. Consult the CFM-TD (°F) Ratio table related to the mounting height.
3. Look for the desired NC value in the recommended Sound Level Table.
4. The data contained in the Selection Tables may now be used to continue with the selection.
5. Consult our factory if sizes not published are desired.
6. The total pressure in the tables is equal to the sum of the neck velocity pressure plus static pressure required. Be sure to use adequate static pressure.

MAXIMUN CFM for TD and MOUNTING HEIGHT

Mtg Ht	Max. T.D. (°F)	Total Outlet	CFM In" One Dir	Mtg Ht	Max. T.D. (°F)	Total Outlet	CFM In" One Dir
7"	18	400	150	14"	30	4000	1400
8"	22	750	250	15"	30	5000	1700
9"	25	1100	400	16"	31	6500	2000
10"	26	1500	500	17"	31	8000	2800
11"	27	2000	700	18"	32	10000	3500
12"	28	2600	900	19"	32	12000	4500
13"	29	3300	1100	20"	33	15000	6000

Application	Aver. NC
Broadcast Studios, Legimate Theaters, Concerts Halls, Music Rooms.	Below NC 25
Conference Rooms, Libraries, Museums.	NC 30
Private Offices, Hospitals, Hotels Rooms, Movie Theater, Churches, Residences, Court Room.	NC 35
Restaurants, General Offices Spaces, Small Stores.	NC 40
Public Building, Post Offices, General Stores, Cafeterias.	NC 45
Factories	NC 50/OVER

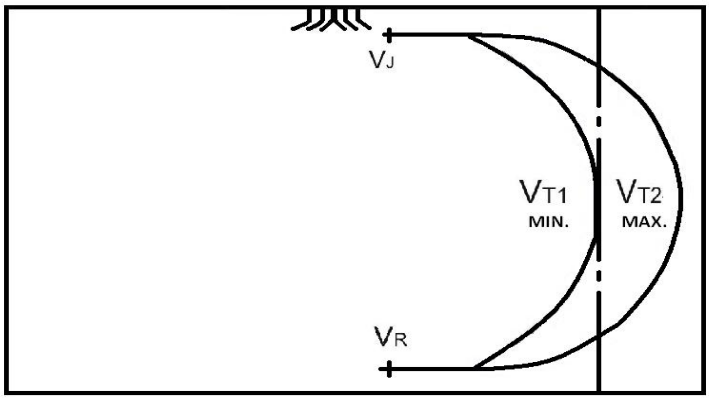
L - AV SERIES ENGINEERING DATA

Vj - Jet velocity as indicated by Velometer reading

Vt1- Terminal velocity of 100ft. per min. based on isothermal air, readings 3 ft. below ceiling.

Vt2- Terminal velocity of 50 ft. per min. based on isothermal air, readings 3 ft. below ceiling.

VR- Room velocity of 35 ft. per min. average based on short throw . 25 ft. per min. or less for long throw.



DROP FOR VT1 AND VT2			
TEMP. DIFF. DEG.F.	DROP IN FT, - 10´CEIL. 100´/MIN.VT1	DROP IN FT, - 10 CEIL, 50´/MIN.VT1	
0 DEG	1´	2´	FIGURES APPLY TO WALL OR MIDPOINTS BETWEEN 2 DIFFUSERS
10 DEG	2´	3´	
20 DEG	3´	4´	
30 DEG	5´	6´	

L - AV SERIES AREA FACTOR FOR SIZE

AREA FACTORS FOR SIZES NOT SHOWN ON PERFORMANCE CHART

1-WAT PATTERN MATH OB DAMPER

NECK DIM	6	9	12	15	18	21	24	27	30	33	36
6	0,14										
9	0,195	0,27									
12	0.25	0.38	0.5								
15	0.32	0.475	0.63	0.79							
18	0.38	0.57	0.75	0.94	1.03						
21	0.44	0.655	0.87	1.02	1.23	1.39					
24	0.5	0.75	1.00	1.21	1.43	1.59	1.81				
27	0.56	0.84	1.10	1.40	1.45	1.8	2.02	2.45			
30	0.62	0.93	1.20	1.50	1.74	2.08	2.24	2.75	3.05		
33	0.68	1.01	1.40	1.70	1.95	2.37	2.53	2.95	3.30	3.65	
36	0.75	1.10	1.50	1.80	2.15	2.55	2.79	3.25	3.65	3.86	4.00

AREA FACTORS FOR SIZES NOT SHOWN ON PERFORMANCE CHART

2-WAT PATTERN MATH OB DAMPER

NECK DIM	6	9	12	15	18	21	24	27	30	33	36	39	42	45
6	0.13													
9	0.2	0.28												
12	0.25	0.37	0.49											
15	0.33	0.47	0.6	0.74										
18	0.39	0.54	0.715	0.92	1.05									
21	0.46	0.63	0.825	1.11	1.35	1.42								
24	0.53	0.73	0.94	1.32	1.52	1.62	1.85							
27	0.6	0.84	1.06	1.41	1.71	1.93	2.18	2.48						
30	0.66	0.94	1.17	1.61	1.92	2.13	2.39	2.78	3.08					
33	0.73	1.02	1.24	1.83	2.10	2.35	2.68	3.09	3.38	3.67				
36	0.79	1.11	1.45	1.91	2.31	2.54	2.98	3.34	3.69	3.87	4.02			
39	0.86	1.21	1.62	2.23	2.49	2.72	3.19	3.69	4.18	4.46	4.77	5.07		
42	0.92	1.30	1.8	2.43	2.70	2.89	3.58	3.98	4.57	4.89	5.18	5.47	5.89	
45	0.99	1.39	2.03	2.72	2.89	3.15	3.92	4.3	4.98	5.31	5.67	5.92	6.77	7.01
48	1.05	1.48	2.26	2.96	3.21	3.47	4.25	4.62	5.42	5.70	6.12	6.29	7.01	7.32

L - AV SERIES AREA FACTOR FOR SIZE

AREA FACTORS FOR SIZES NOT SHOWN ON PERFORMANCE CHART

3-WAT PATTERN MATH OB DAMPER

NECK DIM	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
6	0.16														
9	0.235	0.33													
12	0.30	0.43	0.57												
15	0.37	0.53	0.70	0.86											
18	0.44	0.635	0.830	0.94	1.23										
21	0.5	0.735	0.97	1.19	1.40	1.60									
24	0.57	0.83	1.10	1.40	1.60	1.80	2.17								
27	0.62	0.95	1.20	1.50	1.90	2.10	2.46	2.75							
30	0.71	1.02	1.40	1.70	2.10	2.30	2.75	2.98	3.16						
33	0.77	1.1	1.50	1.90	2.30	2.50	3.06	3.29	3.45	3.97					
36	0.84	1.18	1.60	2.10	2.50	2.76	3.32	3.57	3.76	3.96	4.04				
39	0.91	1.26	1.70	2.30	2.70	2.87	3.58	3.89	4.29	4.62	4.80	5.20			
42	0.98	1.34	1.85	2.50	2.90	3.09	3.87	4.17	4.27	4.96	5.20	5.56	6.17		
45	1.05	1.52	2.07	2.78	3.12	3.36	4.16	4.48	5.08	5.73	5.75	6.08	6.88	7.25	
48	1.12	1.60	2.34	3.0	3.30	3.62	4.52	4.89	5.48	5.82	6.18	6.34	7.10	7.50	7.60

AREA FACTORS FOR SIZES NOT SHOWN ON PERFORMANCE CHART

4-WAT PATTERN MATH OB DAMPER

NECK DIM	6	9	12	15	18	21	24	27	30	33	36	39	42	45
6	0.2													
9	0.27	0.36												
12	0.32	0.46	0.58											
15	0.39	0.55	0.71	0.87										
18	0.42	0.65	0.840	1.03	1.22									
21	0.48	0.74	0.96	1.25	1.40	1.63								
24	0.57	0.85	1.16	1.36	1.60	1.84	2.10							
27	0.64	0.94	1.25	1.55	1.80	2.16	2.36	2.54						
30	0.72	1.06	1.36	1.75	2.10	2.33	2.50	2.80	3.15					
33	0.78	1.15	1.55	1.95	2.29	2.65	2.75	3.13	3.40	3.70				
36	0.84	1.25	1.65	2.13	2.40	2.95	3.10	3.42	3.70	3.93	4.08			
39	0.91	1.36	1.76	2.29	2.57	3.09	3.26	3.73	4.25	4.50	4.81	5.15		
42	1.02	1.45	1.88	2.52	2.80	3.2	3.65	4.04	4.64	4.95	5.25	5.50	6.02	
45	1.06	1.56	2.09	2.78	2.97	3.32	4.06	4.35	5.02	5.40	5.75	6.02	6.95	7.30
48	1.15	1.67	2.4	3.02	3.29	3.58	4.30	4.70	5.58	5.75	6.2	6.35	7.15	7.48

L - AV SERIES ENGINEERING DATA

Fig A

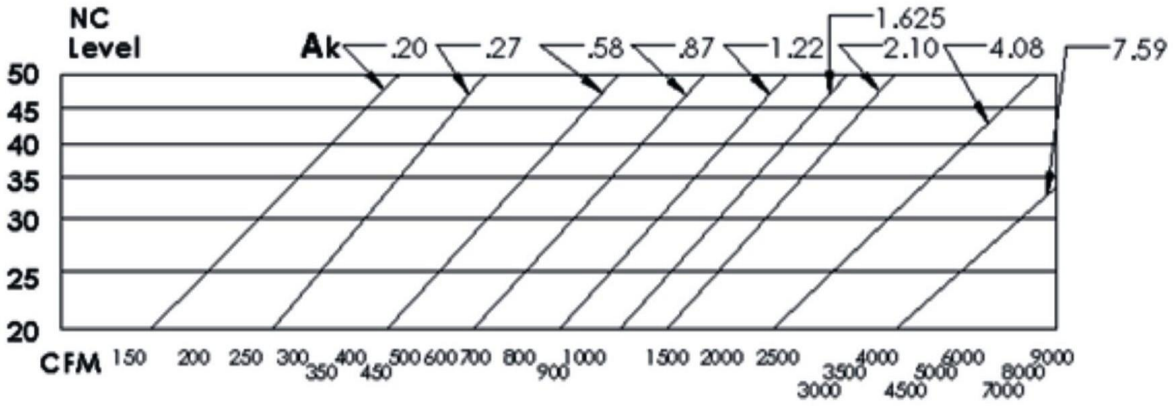


Fig B

AK		NC 20-30	NC 30-40	NC 40-50	NC 50 OR OVER
,13-,20	C.F.M Throw in Ft.	100-150	250-300		
,21-,30	C.F.M Throw in Ft.	200-300	400-500 14-18		
,31-,60	C.F.M Throw in Ft.	350-500	550-825 15-20		
,61-,90	C.F.M Throw in Ft.	550-725	850-1200 19-28		
,91-1,30	C.F.M Throw in Ft.	750-1000 15-20	1200-1600 20-26	1650-2200 28-36	
1,31-1,70	C.F.M Throw in Ft.	1000-1350 18-22	1600-2100 24-34	2200-2900 35-45	
1,71-2,20	C.F.M Throw in Ft.	1350-1750 19-24	2200-2700 30-36	2900-3600 40-48	
2,21-4,10	C.F.M Throw in Ft.	1750-2600 24-32	2200-4500 36-48	3500-6500 40-62	
4,10-7,59	C.F.M Throw in Ft.	3000-4500 34-45	4600-9700 48-64	9800-11000 60-80	11,200-14,000 64-86

NOTE: Blanks under NC 40 and NC 50 columns are due are to excessive total pressure and are not recommended applications

Instructions:

If selections of diffusers from procedure results in a size not shown under certified data, just use the table under Fig. A to find Ak value required for desired sound level. Under table, Fig B, the throw can be selected from corresponding Ak Value. Mathematically interpolation of CFM and throw may be used

Correction table

Long side A vs. short side B determine ratio of long side to short side, the reduce throw of short side bu percentage factor.

Ratio of long to short side	Reduce short side throw %
1,25 to 1	93
1,333 to 1	88
1,50 to 1	86
1,666 to 1	84
1,75 to 1	82
2,00 to 1	78
2,25 to 1	75
2,333 to 1	73
2,50 to 1	72
2,666 to 1	71
2,75 to 1	69
3,00 to 1	67
3,50 to 1	63
4,00 to 1	60

BALANCING PROCEDURE

L-AV-SQUARE and RECTANGULAR

To determine CFM use Alnor Velometer with 2220-A tip positioned as shown in fig 1. Take readings at positions shown by dots (Fig 2-6). On all active discharge sizes, over 24 x 24, take two or three readings (Fig 4-5) per active side and average the total readings to arrive at jet velocity. After selecting the proper Ak value frome the performance chart, multiply the average velocity times the Ak to determine CFM.

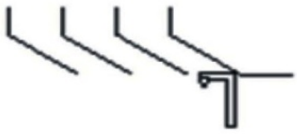


Fig1

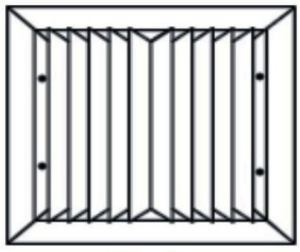


Fig3

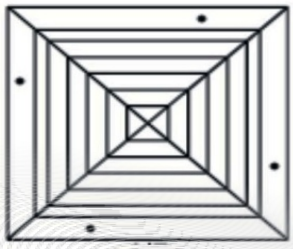


Fig5

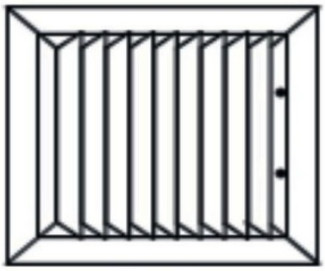


Fig2

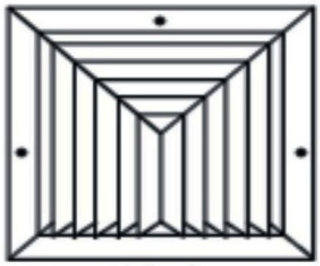


Fig4

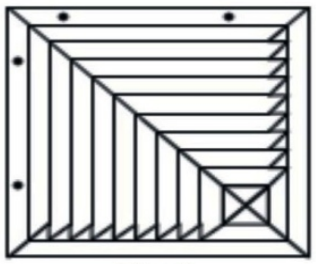


Fig6

L - AV 1WAY SERIES PERFORMANCE DATA

size in inches	Neck level	400	450	500	550	600	650	700
	Vel. Press	0,01	0,013	0,016	0,019	0,023	0,026	0,031
6 x 6 Ak.14	**CFM**	**100**	**112**	**125**	**137**	**150**	**162**	**175**
	Ft. Throw	,8-16	,10-14	,11-15	,11-16	,12-17	,12-17	,13-18
	Tot. Press	0,042	0,053	0,066	0,08	0,097	0,112	0,131
	NC	**18**	**19**	**21**	**22**	**24**	**25**	**26**
9 x 9 Ak.27	**CFM**	**224**	**252**	**280**	**308**	**336**	**364**	**392**
	Ft. Throw	,12-20	15-22	16-22	17-23	18-25	18-26	19-27
	Tot. Press	0,05	0,063	0,079	0,096	0,114	0,136	0,157
	NC	**20**	**22**	**24**	**25**	**27**	**28**	**30**
12 x 12 Ak.50	**CFM**	**400**	**450**	**500**	**550**	**600**	**650**	**700**
	Ft. Throw	20-27	20-28	21-30	22-32	23-33	24-35	25-35
	Tot. Press	0,046	0,060	0,074	0,091	0,109	0,131	0,151
	NC	**20**	**22**	**24**	**26**	**27**	**29**	**30**
15 x 15 Ak.79	**CFM**	**624**	**702**	**780**	**858**	**936**	**1014**	**1092**
	Ft. Throw	24-34	25-36	27-38	28-40	29-41	30-43	32-44
	Tot. Press	0,048	0,064	0,079	0,095	0,113	0,131	0,156
	NC	**23**	**25**	**27**	**29**	**31**	**32**	**34**
6 x 9 Ak.195	**CFM**	**150**	**169**	**188**	**206**	**225**	**244**	**262**
	Ft. Throw	,12-17	,12-17	,13-19	14-19	14-20	15-21	15-22
	Tot. Press	0,050	0,063	0,078	0,094	0,113	0,133	0,156
	NC	**19**	**20**	**22**	**23**	**25**	**26**	**27**
9 x 12 Ak.38	**CFM**	**300**	**338**	**375**	**413**	**450**	**488**	**525**
	Ft. Throw	16-23	18-25	19-27	19-28	20-29	21-30	22-31
	Tot. Press	0,048	0,062	0,076	0,092	0,113	0,129	0,151
	NC	**21**	**23**	**24**	**26**	**27**	**29**	**30**
9 x 15 Ak.475	**CFM**	**375**	**442**	**469**	**516**	**563**	**610**	**656**
	Ft. Throw	18-26	20-27	21-29	21-31	23-32	23-33	24-34
	Tot. Press	0,046	0,058	0,071	0,088	0,103	0,123	0,146
	NC	**22**	**24**	**26**	**27**	**29**	**30**	**32**
12 x 15 Ak.63	**CFM**	**500**	**562**	**625**	**688**	**750**	**813**	**875**
	Ft. Throw	21-30	23-32	24-34	25-35	26-37	27-39	28-40
	Tot. Press	0,05	0,065	0,08	0,099	0,119	0,141	0,161
	NC	**23**	**25**	**27**	**29**	**31**	**32**	**34**
12 x 18 Ak.75	**CFM**	**600**	**675**	**750**	**825**	**900**	**975**	**1050**
	Ft. Throw	24-33	25-35	26-37	27-39	29-40	30-42	32-43
	Tot. Press	0,05	0,065	0,08	0,099	0,119	0,141	0,161
	NC	**23**	**25**	**27**	**29**	**31**	**32**	**34**
6 x 12 Ak.25	**CFM**	**200**	**225**	**250**	**275**	**300**	**325**	**350**
	Ft. Throw	14-19	14-20	15-21	16-23	17-23	17-24	18-25
	Tot. Press	0,049	0,062	0,077	0,094	0,113	0,127	0,156
	NC	**19**	**21**	**23**	**18**	**26**	**27**	**29**

L - AV 1 WAY SERIES PERFORMANCE DATA

size in inches	Neck level	400	450	500	550	600	650	700
	Vel. Press	0,01	0,013	0,016	0,019	0,023	0,026	0,031
6 x 15 Ak.32	**CFM**	**250**	**281**	**312**	**344**	**375**	**406**	**438**
	Ft. Throw	15-21	16-23	17-24	18-25	19-26	19-27	20-28
	Tot. Press	0,047	0,059	0,071	0,089	0,107	0,124	0,146
	NC	**20**	**22**	**24**	**25**	**26**	**28**	**29**
6 x 18 Ak.38	**CFM**	**300**	**337**	**375**	**413**	**450**	**487**	**525**
	Ft. Throw	16-23	18-25	19-27	19-28	20-28	21-30	22-31
	Tot. Press	0,048	0,062	0,076	0,092	0,113	0,129	0,151
	NC	**21**	**23**	**24**	**26**	**27**	**29**	**30**
6 x 21 Ak.44	**CFM**	**350**	**394**	**437**	**481**	**525**	**570**	**621**
	Ft. Throw	18-25	19-27	20-28	21-30	22-31	23-32	24-33
	Tot. Press	0,049	0,062	0,076	0,091	0,112	0,13	0,151
	NC	**20**	**22**	**24**	**25**	**27**	**28**	**30**
6 x 24 Ak.50	**CFM**	**400**	**450**	**500**	**550**	**600**	**650**	**700**
	Ft. Throw	20-27	20-28	21-30	22-32	23-33	24-35	25-35
	Tot. Press	0,046	0,06	0,074	0,091	0,109	0,131	0,151
	NC	**20**	**22**	**24**	**26**	**27**	**29**	**30**
9 x 18 Ak.57	**CFM**	**450**	**506**	**563**	**619**	**675**	**731**	**788**
	Ft. Throw	19-29	21-30	23-32	24-34	25-35	26-36	27-38
	Tot. Press	0,048	0,061	0,076	0,089	0,109	0,131	0,151
	NC	**22**	**23**	**25**	**26**	**28**	**30**	**34**
9 x 21 Ak.655	**CFM**	**524**	**590**	**655**	**720**	**786**	**852**	**917**
	Ft. Throw	23-31	23-32	24-35	25-36	27-37	28-40	30-40
	Tot. Press	0,050	0,065	0,078	0,096	0,117	0,136	0,156
	NC	**23**	**25**	**26**	**28**	**30**	**31**	**33**
9 x 24 Ak.75	**CFM**	**600**	**675**	**750**	**825**	**900**	**975**	**1050**
	Ft. Throw	24-33	25-35	26-37	27-39	29-40	30-42	32-43
	Tot. Press	0,050	0,65	0,08	0,099	0,119	0,141	0,161
	NC	**23**	**25**	**27**	**29**	**31**	**32**	**34**
12 x 24 Ak.1,00	**CFM**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**
	Ft. Throw	28-38	29-40	30-43	32-45	33-46	34-49	39-50
	Tot. Press	0,050	0,064	0,081	0,099	0,119	0,141	0,166
	NC	**24**	**27**	**29**	**31**	**33**	**35**	**38**

L - AV 2WAY SERIES PERFORMANCE DATA

size in inches	Neck level	400	450	500	550	600	650	700
	Vel. Press	0,01	0,013	0,016	0,019	0,023	0,026	0,031
6 x 6 Ak.13	**CFM**	**100**	**112**	**125**	**137**	**150**	**162**	**175**
	Ft. Throw	,10-13	,10-14	,11-15	,11-17	,12-17	,12-17	,13-18
	Tot. Press	0,048	0,058	0,059	0,089	0,107	0,121	0,141
	NC	**18**	**19**	**21**	**22**	**23**	**24**	**26**
9 x 9 Ak.28	**CFM**	**224**	**252**	**280**	**308**	**336**	**364**	**392**
	Ft. Throw	14-20	15-22	16-23	16-24	17-25	18-26	19-27
	Tot. Press	0,037	0,046	0,059	0,068	0,081	0,094	0,109
	NC	**20**	**21**	**23**	**25**	**27**	**28**	**30**
12 x 12 Ak.49	**CFM**	**400**	**450**	**500**	**550**	**600**	**650**	**700**
	Ft. Throw	19-27	20-29	21-30	22-32	23-33	25-35	25-36
	Tot. Press	0,056	0,070	0,086	0,103	0,123	0,143	1,66
	NC	**21**	**22**	**24**	**26**	**27**	**28**	**30**
15 x 15 Ak.74	**CFM**	**624**	**702**	**780**	**858**	**936**	**1014**	**1092**
	Ft. Throw	23-34	25-36	26-37	28-40	29-41	30-43	31-45
	Tot. Press	0,055	0,064	0,084	0,099	0,118	0,14	0,159
	NC	**24**	**26**	**28**	**30**	**31**	**33**	**35**
18 x 18 Ak.1,05	**CFM**	**900**	**1012**	**1125**	**1240**	**1350**	**1462**	**1575**
	Ft. Throw	24-34	25-36	27-38	28-40	29-42	31-43	32-44
	Tot. Press	0,065	0,08	0,095	0,113	0,138	0,161	0,186
	NC	**27**	**30**	**32**	**34**	**36**	**37**	**40**
21 x 21 Ak.1,42	**CFM**	**1224**	**1377**	**1530**	**1683**	**1836**	**1990**	**2142**
	Ft. Throw	33-47	35-50	37-53	39-56	41-58	42-61	44-63
	Tot. Press	0,062	0,077	0,096	0,114	0,138	0,159	0,186
	NC	**27**	**29**	**30**	**33**	**35**	**37**	**40**
24 x 24 Ak.1,845	**CFM**	**1600**	**1800**	**2000**	**2200**	**2400**	**2600**	**2800**
	Ft. Throw	38-54	41-58	43-61	45-64	47-66	48-69	50-72
	Tot. Press	0,062	0,079	0,098	0,117	0,141	0,163	0,191
	NC	**27**	**29**	**31**	**33**	**35**	**37**	**40**
6 x 9 Ak.1,95	**CFM**	**150**	**169**	**188**	**206**	**225**	**244**	**262**
	Ft. Throw	,12-16	,12-17	13-18	14-19	14-20	15-21	15-22
	Tot. Press	0,058	0,073	0,089	0,104	0,126	0,147	0,167
	NC	**19**	**20**	**22**	**23**	**25**	**26**	**27**
6 x 12 Ak.25	**CFM**	**200**	**225**	**250**	**275**	**300**	**325**	**350**
	Ft. Throw	13-19	14-20	16-22	16-23	17-24	18-25	18-26
	Tot. Press	0,05	0,063	0,084	0,101	0,123	0,138	0,161
	NC	**20**	**21**	**23**	**24**	**26**	**27**	**29**
9 x 12 Ak.37	**CFM**	**300**	**338**	**375**	**413**	**450**	**488**	**525**
	Ft. Throw	1,01	20-25	21-26	21-27	22-29	24-29	25-31
	Tot. Press	0,046	0,07	0,085	0,103	0,121	0,142	0,157
	NC	**23**	**25**	**27**	**29**	**30**	**32**	**34**

L - AV 2WAY SERIES PERFORMANCE DATA

size in inches	Neck level	400	450	500	550	600	650	700
	Vel. Press	0,01	0,013	0,016	0,019	0,023	0,026	0,031
9 x 15 Ak.47	**CFM**	**375**	**422**	**469**	**516**	**563**	**610**	**656**
	Ft. Throw	18-26	20-28	21-29	21-31	22-32	24-34	25-35
	Tot. Press	0,049	0,07	0,09	0,107	0,118	0,151	0,171
	NC	**21**	**23**	**25**	**27**	**28**	**30**	**31**
9 x 18 Ak.54	**CFM**	**450**	**506**	**563**	**619**	**675**	**731**	**788**
	Ft. Throw	20-29	21-30	23-32	24-33	25-35	26-37	26-39
	Tot. Press	0,059	0,073	0,09	0,107	0,131	0,146	0,174
	NC	**21**	**23**	**25**	**26**	**28**	**30**	**31**
9 x 21 Ak.63	**CFM**	**524**	**590**	**655**	**720**	**786**	**852**	**917**
	Ft. Throw	22-31	23-33	24-35	25-36	26-38	28-40	29-41
	Tot. Press	0,05	0,062	0,076	0,089	0,106	0,122	0,141
	NC	**23**	**25**	**26**	**28**	**30**	**32**	**34**
12 x 15 Ak.60	**CFM**	**500**	**562**	**625**	**688**	**750**	**813**	**875**
	Ft. Throw	21-30	22-32	24-34	25-35	26-37	27-39	28-40
	Tot. Press	0,059	0,075	0,09	0,109	0,131	1,51	0,175
	NC	**23**	**24**	**26**	**28**	**29**	**30**	**31**
12 x 18 Ak.715	**CFM**	**600**	**675**	**750**	**825**	**900**	**975**	**1050**
	Ft. Throw	23-33	24-35	25-37	27-38	29-41	30-42	31-44
	Tot. Press	0,061	0,075	0,092	0,11	0,13	0,151	0,176
	NC	**24**	**26**	**28**	**30**	**31**	**33**	**34**
12 x 21 Ak.825	**CFM**	**700**	**788**	**875**	**963**	**1050**	**1138**	**1225**
	Ft. Throw	23-36	25-38	26-40	27-42	29-44	30-46	31-48
	Tot. Press	0,061	0,076	0,092	0,113	0,133	0,156	0,183
	NC	**25**	**27**	**29**	**31**	**33**	**35**	**37**
12 x 24 Ak.94	**CFM**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**
	Ft. Throw	27-38	28-41	30-43	32-45	33-47	35-49	35-51
	Tot. Press	0,060	0,077	0,094	0,113	0,133	0,156	1,83
	NC	**27**	**29**	**31**	**33**	**35**	**37**	**39**
12 x 24 Ak.1,00	**CFM**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**
	Ft. Throw	28-38	29-40	30-43	32-45	33-46	34-49	39-50
	Tot. Press	0,050	0,064	0,081	0,099	0,119	0,141	0,166
	NC	**24**	**27**	**29**	**31**	**33**	**35**	**38**

L - AV 4WAY SERIES PERFORMANCE DATA

size in inches	Neck level	400	450	500	550	600	650	700
	Vel. Press	0,01	0,013	0,016	0,019	0,023	0,026	0,031
6 x 6 Ak.20	**CFM**	**100**	**112**	**125**	**137**	**150**	**162**	**175**
	Ft. Throw	,5-8	,5-9	,6-9	,7-10	,7-1	,8-11	,8-11
	Tot. Press	0,031	0,038	0,05	0,056	0,068	0,077	0,091
	NC	**15**	**16**	**17**	**19**	**20**	**21**	**22**
9 x 9 Ak.36	**CFM**	**224**	**252**	**280**	**308**	**336**	**364**	**392**
	Ft. Throw	,8-12	,9-13	,10-14	,10-14	,11-15	,11-16	,12-16
	Tot. Press	0,037	0,051	0,058	0,069	0,082	0,085	0,11
	NC	**18**	**19**	**21**	**22**	**24**	**25**	**27**
12 x 12 Ak.58	**CFM**	**400**	**450**	**500**	**550**	**600**	**650**	**700**
	Ft. Throw	,11-16	,12-18	,13-19	14-20	14-21	15-22	16-23
	Tot. Press	0,045	0,058	0,071	0,084	0,100	0,116	0,13
	NC	**18**	**20**	**22**	**23**	**25**	**26**	**28**
15 x 15 Ak.87	**CFM**	**624**	**702**	**780**	**858**	**936**	**1014**	**1092**
	Ft. Throw	14-21	16-22	17-23	17-24	18-25	19-26	19-28
	Tot. Press	0,044	0,06	0,073	0,083	0,097	0,112	0,131
	NC	**19**	**21**	**23**	**25**	**27**	**28**	**30**
18 x 18 Ak.1,22	**CFM**	**900**	**1012**	**1125**	**1240**	**1350**	**1462**	**1575**
	Ft. Throw	18-25	20-26	20-28	21-29	21-30	22-32	23-33
	Tot. Press	0,048	0,06	0,074	0,087	0,104	0,116	0,136
	NC	**20**	**21**	**24**	**26**	**28**	**30**	**31**
21 x 21 Ak.1,625	**CFM**	**1224**	**1377**	**1530**	**1683**	**1830**	**1990**	**2142**
	Ft. Throw	21-30	22-32	24-33	25-35	26-37	27-38	28-39
	Tot. Press	0,049	0,061	0,074	0,087	0,104	0,118	0,136
	NC	**20**	**22**	**24**	**26**	**28**	**30**	**31**
24 x 24 Ak.2,10	**CFM**	**1600**	**1800**	**2000**	**2200**	**2400**	**2600**	**2800**
	Ft. Throw	23-33	25-35	26-37	28-39	30-41	30-42	31-44
	Tot. Press	0,049	0,062	0,076	0,092	0,108	0,124	0,143
	NC	**21**	**23**	**25**	**27**	**29**	**32**	**34**
36 x 36 Ak.4,08	**CFM**	**3600**	**4050**	**4500**	**4950**	**5400**	**5850**	**6300**
	Ft. Throw	35-50	37-52	39-55	41-59	43-61	45-64	47-66
	Tot. Press	0,059	0,077	0,091	0,114	0,138	0,158	0,181
	NC	**26**	**27**	**30**	**33**	**35**	**38**	**40**
48 x 48 Ak.7,59	**CFM**	**6400**	**7200**	**8000**	**8800**	**9600**	**10400**	**11200**
	Ft. Throw	47-66	50-70	52-74	55-78	58-82	60-85	62-88
	Tot. Press	0,058	0,073	0,091	0,109	0,134	0,146	0,176
	NC	**27**	**29**	**31**	**34**	**37**	**40**	**42**
6 x 9 Ak.27	**CFM**	**150**	**169**	**188**	**206**	**225**	**244**	**262**
	Ft. Throw	6-10	,7-11	,8-11	,8-12	,9-12	,9-13	,10-14
	Tot. Press	0,03	0,037	0,046	0,054	0,063	0,075	0,086
	NC	**14**	**15**	**17**	**18**	**19**	**21**	**22**

L - AV SERIES PERFORMANCE DATA

size in inches	Neck level	400	450	500	550	600	650	700
	Vel. Press	0,01	0,013	0,016	0,019	0,023	0,026	0,031
6 x 12 Ak.32	**CFM**	**200**	**225**	**250**	**275**	**300**	**325**	**350**
	Ft. Throw	7- 12	,8-12	,9-13	,10-13	,10-14	,11-15	,11-15
	Tot. Press	0,035	0,044	0,054	0,064	0,077	0,087	0,103
	NC	**17**	**19**	**21**	**22**	**24**	**25**	**27**
9 x 12 Ak.46	**CFM**	**300**	**338**	**375**	**413**	**450**	**488**	**525**
	Ft. Throw	,9-14	,11-15	,11-16	,12-17	13-18	13-18	14-19
	Tot. Press	0,037	0,047	0,057	0,068	0,08	0,093	0,107
	NC	**15**	**17**	**19**	**21**	**22**	**24**	**25**
9 x 15 Ak.55	**CFM**	**375**	**422**	**469**	**510**	**563**	**610**	**656**
	Ft. Throw	,11-16	,12-17	13-18	14-19	14-20	14-20	15-21
	Tot. Press	0,03	0,049	0,057	0,062	0,085	0,1	0,113
	NC	**18**	**20**	**21**	**23**	**25**	**26**	**27**
9 x 18 Ak.65	**CFM**	**450**	**506**	**563**	**619**	**675**	**781**	**788**
	Ft. Throw	,11-18	14-18	14-20	15-20	15-22	16-22	16-23
	Tot. Press	0,044	0,056	0,07	0,081	0,096	0,11	0,129
	NC	**17**	**19**	**21**	**22**	**24**	**25**	**27**
9 x 21 Ak.74	**CFM**	**524**	**590**	**655**	**720**	**786**	**852**	**917**
	Ft. Throw	13-19	14-20	15-21	16-22	16-23	17-24	18-25
	Tot. Press	0,045	0,057	0,07	0,083	0,098	0,112	0,131
	NC	**18**	**20**	**22**	**23**	**25**	**27**	**29**
12 x 15 Ak.71	**CFM**	**500**	**562**	**625**	**688**	**750**	**813**	**875**
	Ft. Throw	,12-19	14-20	15-21	16-22	16-23	17-24	17-25
	Tot. Press	0,045	0,059	0,072	0,083	0,097	0,112	0,131
	NC	**17**	**19**	**21**	**23**	**25**	**27**	**29**
12 x 18 Ak.89	**CFM**	**600**	**675**	**750**	**825**	**900**	**975**	**1050**
	Ft. Throw	14-20	15-22	16-23	17-24	18-25	18-26	19-27
	Tot. Press	0,045	0,056	0,07	0,083	0,095	0,112	0,131
	NC	**20**	**21**	**23**	**25**	**27**	**29**	**30**
12 x 24 Ak.1,09	**CFM**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**
	Ft. Throw	16-24	18-25	19-26	20-27	20-29	21-30	22-31
	Tot. Press	0,047	0,059	0,072	0,085	0,101	0,116	0,135
	NC	**19**	**20**	**22**	**24**	**26**	**28**	**30**
15 x 18 Ak.1,03	**CFM**	**750**	**844**	**938**	**1031**	**1125**	**1220**	**1313**
	Ft. Throw	16-23	17-24	18-26	19-27	20-28	21-29	21-30
	Tot. Press	0,049	0,061	0,073	0,087	0,101	0,117	0,133
	NC	**18**	**20**	**22**	**24**	**26**	**28**	**29**
18 x 24 Ak.1,595	**CFM**	**1200**	**1350**	**1500**	**1650**	**1800**	**1950**	**2100**
	Ft. Throw	19-28	20-30	23-32	24-34	25-36	26-37	27-38
	Tot. Press	0,050	0,062	0,076	0,089	0,105	0,121	0,139
	NC	**20**	**22**	**24**	**26**	**28**	**30**	**33**

L - AV PANEL

size in inches	Neck level	300	400	500	600	700	800	900
	Vel. Press	0,039	0,073	0,116	0,167	0,228	0,298	0,382
9 x 9	**CFM**	**149**	**198**	**248**	**297**	**347**	**396**	**446**
	Ft. Throw	7 - 18	8 - 21	10 - 23	12 - 26	14 - 28	16 - 31	17 - 35
	Tot. Press	0,095	0,15	0,26	0,37	0,50	0,73	0,9
	NC	-	**16**	**22**	**27**	**30**	**36**	**40**
12 x 12	**CFM**	**264**	**352**	**440**	**528**	**616**	**704**	
	Ft. Throw	12 - 25	14 - 25	16 - 28	17 - 31	20 - 35	25 - 38	
	Tot. Press	0,15	0,3	0,45	0,65	0,9	1,1	
	NC	**18**	**23**	**26**	**31**	**36**	**40**	
15 x 15	**CFM**	**413**	**550**	**688**	**825**	**963**		
	Ft. Throw	15 - 26	20 - 29	25 - 32	28 - 35	30 - 40		
	Tot. Press	0,045	0,058	0,071	0,084	0,100		
	NC	**18**	**22**	**30**	**34**	**40**		
18 x 18	**CFM**	**594**	**792**	**990**	**1188**			
	Ft. Throw	20 - 29	24 - 33	27 - 37	30 - 45			
	Tot. Press	0,044	0,06	0,073	0,083			
	NC	**19**	**25**	**30**	**35**			
21 x 21	**CFM**	**809**	**1012**	**1125**				
	Ft. Throw	23 - 33	27 - 36	30 - 41				
	Tot. Press	0,048	0,06	0,074				
	NC	**20**	**28**	**35**				