



ENGINEERING DATA

SQD, AQD

Neck Velocity	300	400	500	600	700	800	900	1000	1100
Velocity Pressure	0.006	0.010	0.016	0.022	0.031	0.040	0.050	0.062	0.075

6x6	Airflow (CFM)	75	100	125	150	175	200	225	250	275
	Total Pressure	0.011	0.019	0.030	0.043	0.059	0.077	0.097	0.120	0.145
	Noise Criteria	-	-	-	11	15	19	22	25	28
	1-way - Horizontal Throw	8-11-16	10-13-18	12-15-21	13-16-23	14-17-24	15-18-26	16-20-28	17-21-29	18-22-30
	2-way - Horizontal Throw	6-9-12	8-10-14	9-11-16	10-12-17	11-13-19	12-14-20	12-15-21	13-16-22	14-17-23
	3-way - Horizontal Throw	5-8-12	7-10-13	6-11-15	10-12-16	10-13-18	11-13-19	12-14-20	12-15-21	13-16-22
4-way - Horizontal Throw	4-5-8	5-6-9	6-7-10	6-8-11	7-8-12	7-9-13	8-9-13	8-10-14	9-10-15	

8x8	Airflow (CFM)	133	178	222	267	311	356	400	444	489
	Total Pressure	0.013	0.023	0.036	0.053	0.071	0.093	0.118	0.146	0.176
	Noise Criteria	-	-	12	17	21	25	28	31	33
	1-way - Horizontal Throw	10-15-21	14-17-25	16-19-27	17-21-30	19-23-32	20-25-35	21-26-37	22-27-39	23-29-41
	2-way - Horizontal Throw	8-12-16	10-13-19	12-15-21	13-16-23	14-18-25	15-19-27	16-20-28	17-21-30	18-22-31
	3-way - Horizontal Throw	7-11-16	10-13-18	12-14-20	13-16-22	14-17-24	15-18-25	16-19-27	16-20-28	17-21-30
4-way - Horizontal Throw	5-7-10	6-8-12	8-9-13	8-10-15	9-11-16	10-12-17	10-13-18	11-13-19	11-14-20	

10x10	Airflow (CFM)	208	278	347	417	486	556	625	694	764
	Total Pressure	0.016	0.029	0.045	0.065	0.088	0.115	0.145	0.179	0.217
	Noise Criteria	-	-	17	21	26	29	32	35	38
	1-way - Horizontal Throw	13-19-27	17-22-31	20-24-34	22-27-38	23-29-41	25-31-43	27-33-46	28-34-48	29-36-51
	2-way - Horizontal Throw	10-14-20	13-17-24	15-19-26	17-20-29	18-22-31	19-24-33	20-25-35	22-26-37	23-28-39
	3-way - Horizontal Throw	9-14-19	12-16-22	14-18-25	16-19-27	17-21-30	18-22-32	19-24-34	20-25-35	21-26-37
4-way - Horizontal Throw	6-9-13	8-11-15	10-12-17	11-13-18	11-14-20	12-15-21	13-16-22	14-17-23	14-17-25	

12x12	Airflow (CFM)	300	400	500	600	700	800	900	1000	1100
	Total Pressure	0.020	0.035	0.055	0.079	0.108	0.141	0.178	0.220	0.266
	Noise Criteria	-	14	20	25	29	33	36	39	41
	1-way - Horizontal Throw	16-23-32	21-26-37	24-29-41	26-32-45	28-34-49	30-37-52	32-39-55	34-41-58	35-43-61
	2-way - Horizontal Throw	12-17-24	16-20-28	18-22-32	20-24-35	22-26-37	23-28-40	24-30-42	26-32-45	27-33-47
	3-way - Horizontal Throw	11-16-23	14-19-27	14-21-30	19-23-33	21-25-36	22-27-38	23-29-40	25-30-42	26-32-45
4-way - Horizontal Throw	7-11-15	10-13-18	12-14-20	13-15-22	14-17-24	15-18-25	15-19-27	16-20-28	17-21-30	

14x14	Airflow (CFM)	408	544	681	817	953	1089	1225	1361	1497
	Total Pressure	0.024	0.043	0.067	0.097	0.132	0.172	0.217	0.268	0.325
	Noise Criteria	-	17	23	28	32	36	39	42	44
	1-way - Horizontal Throw	18-26-37	24-30-43	23-34-48	30-37-53	33-40-57	35-43-61	37-46-64	39-48-68	41-50-71
	2-way - Horizontal Throw	14-20-29	19-23-33	21-26-37	23-29-40	25-31-44	27-33-47	29-35-49	30-37-52	32-39-55
	3-way - Horizontal Throw	13-19-27	17-22-31	20-25-35	22-27-38	24-29-41	26-31-44	27-33-47	29-35-50	30-37-52
4-way - Horizontal Throw	8-13-18	11-15-21	13-16-23	15-18-25	16-19-28	17-21-29	18-22-31	19-23-33	20-24-34	

16x16	Airflow (CFM)	533	711	889	1067	1244	1422	1600	1778	1956
	Total Pressure	0.029	0.052	0.081	0.117	0.159	0.207	0.263	0.324	0.392
	Noise Criteria	12	20	26	31	35	39	42	45	47
	1-way - Horizontal Throw	21-30-42	28-35-49	32-39-55	35-42-60	37-46-65	40-49-69	42-52-74	45-55-78	47-57-81
	2-way - Horizontal Throw	16-23-33	21-27-38	24-30-42	27-33-46	29-35-50	31-38-53	33-40-57	34-42-60	36-44-63
	3-way - Horizontal Throw	14-22-31	19-25-36	23-28-40	25-31-44	27-34-47	29-36-51	31-38-54	33-40-57	34-42-59
4-way - Horizontal Throw	10-14-21	13-17-24	15-19-27	17-21-29	18-22-31	19-24-34	21-25-36	22-27-38	23-28-39	

18x18	Airflow (CFM)	675	900	1125	1350	1575	1800	2025	2250	2475
	Total Pressure	0.035	0.062	0.097	0.139	0.190	0.248	0.314	0.387	0.469
	Noise Criteria	15	22	28	33	37	41	44	47	49
	1-way - Horizontal Throw	28-34-48	32-39-55	36-44-62	39-48-68	42-52-73	45-55-78	48-59-83	50-62-87	53-65-91
	2-way - Horizontal Throw	21-26-37	24-30-42	27-34-47	30-37-52	32-40-56	35-42-60	37-45-64	39-47-67	41-50-70
	3-way - Horizontal Throw	20-25-35	23-29-40	26-32-45	29-35-49	31-38-53	33-40-57	35-43-60	37-45-64	39-47-67
4-way - Horizontal Throw	13-16-23	15-19-27	17-21-30	19-23-33	20-25-35	22-27-38	23-28-40	24-30-42	26-31-44	

Notes on page CD99

Ceiling Diffusers



ENGINEERING DATA

SQD, AQD

Neck Velocity	300	400	500	600	700	800	900	1000	1100
Velocity Pressure	0.006	0.010	0.016	0.022	0.031	0.040	0.050	0.062	0.075

20x20	Airflow (CFM)	833	1111	1389	1667	1944	2222	2500	2778	3056
	Total Pressure	0.041	0.073	0.114	0.165	0.224	0.293	0.371	0.458	0.554
	Noise Criteria	17	24	30	35	39	43	46	49	52
	1-way - Horizontal Throw	31-38-53	35-43-61	40-48-69	43-53-75	47-57-81	50-61-87	53-65-92	56-69-97	59-72-102
	2-way - Horizontal Throw	24-29-41	27-33-47	30-37-53	33-41-58	36-44-62	38-47-67	41-50-71	43-53-75	45-55-78
	3-way - Horizontal Throw	22-27-39	26-32-45	29-35-50	32-39-55	34-24-59	37-45-63	39-48-67	41-50-71	45-53-74
4-way - Horizontal Throw	15-18-26	17-21-30	19-23-33	21-26-36	23-28-39	24-30-42	26-32-45	27-33-47	28-35-49	

22x22	Airflow (CFM)	1008	1344	1681	2017	2353	2689	3025	3361	3697
	Total Pressure	0.048	0.086	0.134	0.193	0.263	0.343	0.434	0.536	0.648
	Noise Criteria	19	26	32	37	41	45	48	51	53
	1-way - Horizontal Throw	34-41-58	39-48-67	44-53-75	48-58-83	51-63-89	55-67-95	58-72-101	62-75-107	65-79-112
	2-way - Horizontal Throw	26-32-45	30-37-52	33-41-58	37-45-64	40-49-69	42-52-73	45-55-78	47-58-82	50-61-86
	3-way - Horizontal Throw	25-30-43	28-35-49	32-39-55	35-43-60	38-46-65	40-49-70	43-52-74	45-55-78	47-58-82
4-way - Horizontal Throw	16-20-28	19-23-33	21-26-37	23-28-40	25-31-43	27-33-46	28-35-49	30-37-52	31-38-54	

24x24	Airflow (CFM)	1200	1600	2000	2400	2800	3200	3600	4000	4400
	Total Pressure	0.056	0.099	0.155	0.224	0.304	0.398	0.503	0.621	0.752
	Noise Criteria	20	28	34	39	43	47	50	53	55
	1-way - Horizontal Throw	37-45-64	42-52-74	47-58-82	52-64-90	56-69-97	60-74-104	64-78-110	67-82-116	70-86-122
	2-way - Horizontal Throw	28-35-49	33-40-57	37-45-63	40-49-69	43-53-75	46-57-80	49-60-85	52-63-89	54-66-94
	3-way - Horizontal Throw	27-33-47	31-38-54	35-42-60	38-47-66	41-50-71	44-54-76	47-57-81	49-60-85	51-63-89
4-way - Horizontal Throw	18-22-31	21-25-36	23-28-40	25-31-44	27-33-47	29-36-50	31-38-53	33-40-56	34-42-59	

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Units: Neck Velocity = fpm; Total Pressure = in. wc; Velocity Pressure = in. wc; Throw = ft. at 150 fpm, 100 fpm and 50 fpm terminal velocity.
4. NC is based upon 10dB room absorption (Re: 10-12 watts) evaluated at 125 through 4000 Hz octave bands.
5. Flow hoods are recommended for system balancing