

## Performance Data

### Models 7500 and 7200 • Square Neck

Nominal Neck Size	Neck Velocity, FPM	200	300	400	500	600	700	800	900	1000	
	Velocity Pressure	.003	.006	.010	.016	.022	.031	.040	.051	.062	
6 x 6	Total Pressure	.008	.018	.033	.051	.073	.100	.131	.165	.204	
	Airflow, CFM	50	75	100	125	150	175	200	225	250	
	Throw	4-Way	1-1-1	1-1-2	1-2-3	1-2-3	1-2-4	2-3-4	2-3-5	2-3-5	2-3-5
		3-Way	1-1-3	1-2-4	2-3-5	2-4-6	3-4-7	3-5-7	4-5-8	4-6-8	5-6-9
		2-Way	1-1-3	1-2-4	2-3-5	2-4-6	3-4-7	3-5-7	4-5-8	4-6-8	5-6-9
1-Way		1-2-4	2-3-7	3-4-8	3-5-9	4-7-9	5-7-10	6-8-11	7-8-12	7-9-12	
NC	—	—	—	16	22	26	29	32	35		
8 x 8	Total Pressure	.006	.013	.022	.035	.050	.069	.090	.113	.140	
	Airflow, CFM	88	133	177	222	266	310	355	399	444	
	Throw	4-Way	1-2-4	2-3-6	2-4-8	3-5-9	4-6-10	4-7-11	5-8-11	6-8-12	6-9-13
		3-Way	2-3-7	3-5-11	5-7-13	6-9-14	7-11-15	8-12-17	10-13-18	11-14-19	12-14-20
		2-Way	2-3-7	3-5-11	5-7-13	6-9-14	7-11-15	8-12-17	10-13-18	11-14-19	12-14-20
1-Way		3-5-11	5-8-15	7-11-18	9-13-20	11-15-22	12-16-24	14-18-26	15-19-27	16-20-29	
NC	—	—	—	17	25	29	32	35	38		
10 x 10	Total Pressure	.007	.015	.027	.042	.060	.082	.108	.136	.168	
	Airflow, CFM	138	208	277	347	416	485	555	624	694	
	Throw	4-Way	2-3-7	3-5-9	4-7-10	6-8-11	7-9-12	8-9-14	8-10-14	9-11-14	9-11-17
		3-Way	4-6-12	6-10-14	9-12-16	11-13-18	12-14-20	13-15-22	14-16-23	14-19-25	14-20-26
		2-Way	4-6-12	6-10-14	9-12-16	11-13-18	12-14-20	13-15-22	14-16-23	14-17-25	14-18-26
1-Way		6-9-16	9-14-20	13-16-23	14-18-26	16-20-28	17-21-31	18-23-33	20-24-35	21-26-37	
NC	—	—	15	18	24	30	34	37	40		
12 x 12	Total Pressure	.007	.016	.029	.046	.066	.089	.116	.147	.182	
	Airflow, CFM	200	300	400	500	600	700	800	900	1000	
	Throw	4-Way	2-4-8	4-6-11	5-8-12	7-10-14	8-11-14	9-11-15	10-12-17	11-13-18	11-14-19
		3-Way	5-8-14	8-12-17	10-14-20	13-15-22	14-17-24	15-18-26	16-20-28	17-21-30	18-22-32
		2-Way	5-8-14	8-12-17	10-14-20	13-15-22	14-17-24	15-18-26	16-20-28	17-21-30	18-22-32
1-Way		7-11-19	11-16-24	14-19-28	17-22-31	19-24-34	21-26-37	22-28-40	24-30-42	25-31-45	
NC	—	—	17	21	27	32	36	40	43		
14 x 14	Total Pressure	.009	.020	.035	.055	.080	.108	.141	.179	.221	
	Airflow, CFM	272	408	544	680	816	952	1088	1224	1361	
	Throw	4-Way	3-5-10	5-7-12	6-10-14	8-11-15	10-12-19	11-13-18	12-14-19	12-14-21	13-15-22
		3-Way	6-9-16	9-14-20	12-16-23	14-18-26	16-20-29	17-21-31	19-23-33	20-25-35	21-26-37
		2-Way	6-9-16	9-14-20	12-16-23	14-18-26	16-20-29	17-21-31	19-23-33	20-25-35	21-26-37
1-Way		9-13-23	13-19-28	17-23-33	21-25-37	23-28-40	25-30-44	26-33-47	28-35-49	30-37-51	
NC	—	—	19	23	29	34	38	42	45		
16 x 16	Total Pressure	.011	.024	.043	.067	.096	.131	.172	.217	.268	
	Airflow, CFM	355	533	711	889	1066	1244	1422	1600	1778	
	Throw	4-Way	3-5-11	5-8-14	7-11-15	9-13-17	11-14-19	12-14-21	13-15-23	14-17-24	14-17-25
		3-Way	7-10-18	10-15-23	14-18-27	17-21-30	18-23-33	20-25-36	21-27-38	23-28-41	24-30-43
		2-Way	7-10-18	10-15-23	14-18-27	17-21-30	18-23-33	20-25-38	21-27-38	23-28-41	24-31-43
1-Way		10-14-26	14-22-32	20-26-38	24-29-42	26-32-46	28-35-49	30-38-53	32-40-56	34-42-59	
NC	—	—	21	25	31	36	40	44	47		

#### Performance Notes:

- All pressures are in inches w.g.. To obtain static pressure, subtract the velocity pressure from the total pressure.
- Throws are given at 150, 100 and 50 fpm terminal velocities, under isothermal conditions.

- NC (Noise Criteria) values are based on 10 dB room absorption, re 10<sup>-12</sup> watts. Dash (-) in spaces indicates an NC level of less 15.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Neck Size Square in Inches	Ak Factor
6 x 6	0.1134
8 x 8	0.1932
9 x 9	0.2551
10 x 10	0.3024
12 x 12	0.4526
14 x 14	0.5883
15 x 15	0.6804
16 x 16	0.7728

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Nominal Neck Size	Neck Velocity FPM	200	300	400	500	600	700	800	900	1000	
	Velocity Pressure	.003	.006	.010	.016	.022	.031	.040	.051	.062	
18 x 18	Total Pressure	.013	0.029	.051	.080	.115	.157	.205	.259	.320	
	Airflow, CFM	450	675	900	1125	1350	1575	1800	2025	2250	
	Throw	4-Way	4-6-13	6-10-15	8-13-18	11-14-20	13-15-22	14-16-24	14-18-26	15-19-27	16-20-29
		3-Way	8-12-21	12-17-26	15-21-30	19-23-34	21-26-37	23-28-40	24-30-43	26-32-46	27-34-48
		2-Way	8-12-21	12-17-26	15-21-30	19-23-34	21-26-37	23-28-40	24-30-43	26-32-46	27-34-48
		1-Way	11-16-30	16-25-37	22-30-42	27-33-48	30-37-51	32-40-56	34-42-60	36-45-63	39-48-67
NC	—	15	22	26	32	37	42	45	48		
20 x 20	Total Pressure	.015	.034	.061	.095	.136	.186	.243	.307	.379	
	Airflow, CFM	555	835	1110	1390	1665	1945	2220	2500	2775	
	Throw	4-Way	4-7-14	7-11-17	9-14-20	12-15-22	14-17-24	15-18-27	16-20-29	17-21-30	18-22-32
		3-Way	9-13-23	13-19-29	17-23-34	21-26-38	23-29-41	25-31-45	27-34-48	29-36-50	30-38-53
		2-Way	9-13-23	13-19-29	17-23-34	21-26-38	23-29-41	25-31-45	27-34-48	29-36-51	30-38-53
		1-Way	13-18-33	18-28-43	25-33-47	30-37-52	33-41-57	36-44-62	38-47-67	41-49-71	43-52-75
NC	—	17	24	28	34	39	44	47	50		
22 x 22	Total Pressure	.018	.040	.071	.111	.159	.217	.284	.359	.443	
	Airflow, CFM	675	1000	1345	1680	2015	2350	2690	3025	3360	
	Throw	4-Way	5-8-15	8-12-19	10-15-22	13-17-25	15-19-27	16-20-29	18-22-31	19-23-34	20-25-35
		3-Way	10-14-26	14-21-32	19-26-37	23-29-42	26-32-46	28-35-48	30-37-52	32-39-55	34-41-58
		2-Way	10-14-26	14-21-32	19-26-37	23-29-42	26-32-46	28-35-48	30-37-52	32-39-55	34-41-58
		1-Way	14-20-36	20-31-45	28-36-51	33-41-58	36-45-63	39-48-68	41-51-73	45-54-78	47-58-81
NC	—	19	26	30	36	41	46	49	52		
24 x 24	Total Pressure	.021	.046	.082	.129	.185	.252	.329	.416	.514	
	Airflow, CFM	800	1200	1600	2000	2400	2800	3200	3600	4000	
	Throw	4-Way	5-8-16	8-13-21	11-16-24	14-19-27	16-21-30	18-22-32	19-24-35	21-26-37	22-27-39
		3-Way	10-15-28	15-23-35	20-28-41	26-32-45	28-35-49	31-38-53	33-41-57	35-43-61	37-45-64
		2-Way	10-15-28	15-23-35	20-28-41	26-32-45	28-35-49	31-38-53	33-41-57	35-43-61	37-45-64
		1-Way	14-22-40	22-34-48	30-40-56	36-45-63	40-48-69	43-52-75	45-56-79	48-60-84	51-63-89
NC	—	21	28	32	34	43	48	51	54		

#### Performance Notes:

1. All pressures are in inches w.g.. To obtain static pressure, subtract the velocity pressure from the total pressure.
2. Throws are given at 150, 100 and 50 fpm terminal velocities, under isothermal conditions.

3. NC (Noise Criteria) values are based on 10 dB room absorption, re 10<sup>-12</sup> watts. Dash (-) in spaces indicates an NC level of less 15.
4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Neck Size Square in Inches	Ak Factor
18 x 18	0.9541
20 x 20	1.2096
22 x 22	1.4636
24 x 24	1.7304