

SPECTRUM / ROUND INLET / ARCHITECTURAL DIFFUSER

Inlet Size	Neck Velocity (fpm)	200	300	400	500	600	700	800	900	1000	1100
	Velocity Pressure	0.002	0.006	0.010	0.016	0.023	0.030	0.040	0.051	0.063	0.076
6" Dia.	Airflow, cfm	39	59	78	98	118	137	157	177	196	216
	Total Pressure	0.004	0.010	?	0.027	0.039	0.053	0.069	0.088	0.108	0.131
	NC (Noise Criteria)	-	-	-	-	-	14	19	22	26	29
	Throw	1-1-3	1-2-3	2-3-5	3-4-8	3-5-9	4-6-9	4-7-10	5-8-11	6-8-11	6-8-12
8" Dia.	Airflow, cfm	70	105	140	175	209	244	279	314	349	384
	Total Pressure	0.007	0.016	0.029	0.043	0.062	0.085	0.111	0.140	0.173	0.209
	NC (Noise Criteria)	-	-	-	-	12	17	22	25	29	32
	Throw	1-1-4	1-3-7	2-4-9	3-6-11	4-7-12	5-8-13	6-9-13	7-10-14	7-11-15	8-11-16
10" Dia.	Airflow, cfm	109	164	218	273	327	382	436	491	545	600
	Total Pressure	0.008	0.017	0.031	0.048	0.070	0.095	0.124	0.157	0.193	0.234
	NC (Noise Criteria)	-	-	-	-	15	20	24	28	31	34
	Throw	1-2-6	2-3-8	3-5-10	4-7-13	6-8-14	7-10-16	7-11-17	8-13-18	9-14-19	10-14-20
12" Dia.	Airflow, cfm	157	236	316	393	470	550	630	710	785	865
	Total Pressure	0.014	0.032	0.057	0.089	0.128	0.175	0.230	0.290	0.357	0.433
	NC (Noise Criteria)	-	-	-	11	17	21	26	29	33	36
	Throw	1-2-7	2-4-10	3-6-13	5-8-16	7-10-17	8-12-19	9-13-20	10-15-21	11-16-22	12-17-24
14" Dia.	Airflow, cfm	214	321	427	535	641	748	855	962	1070	1175
	Total Pressure	0.019	0.043	0.076	0.119	0.172	0.234	0.305	0.386	0.477	0.576
	NC (Noise Criteria)	-	-	-	12	18	23	27	31	34	37
	Throw	1-2-8	2-5-12	4-7-16	6-10-19	8-12-20	9-14-22	10-16-23	12-18-25	13-19-26	14-19-27
16" Dia.	Airflow, cfm	279	419	557	698	838	977	1117	1257	1395	1535
	Total Pressure	0.025	0.055	0.098	0.154	0.222	0.302	0.394	0.498	0.615	0.745
	NC (Noise Criteria)	-	-	11	14	20	24	29	32	36	39
	Throw	1-2-9	2-5-13	5-8-17	7-11-21	9-13-23	10-16-25	12-18-27	13-20-28	15-21-30	16-22-31

PERFORMANCE NOTES

- Data obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-2006
- Throw values are in feet at terminal velocities of 150, 100 and 50 fpm at isothermal conditions
- For an explanation of catalog throw data, see the Engineering Guidelines section of this catalog
- NC values based on octave band 2 to 7 sound power levels minus a room absorption of 10 dB
- Each NC value represents the noise criteria curve that will not be exceeded by the sound pressure in any of the octave bands, 2 through 7, with a room absorption of 10 dB, re 10⁻¹² watts
- Dash (-) in space denotes an NC value of less than 10
- All pressures are given in inches of water
- To obtain static pressure, subtract velocity pressure from the total pressure

SPECTRUM / SQUARE INLET / ARCHITECTURAL DIFFUSER

Inlet Size	Neck Velocity (fpm)	200	300	400	500	600	700	800	900	1000	1100
	Velocity Pressure	0.002	0.006	0.010	0.016	0.023	0.030	0.040	0.051	0.063	0.076
6 x 6	Airflow, cfm	50	75	100	125	150	175	200	225	250	275
	Total Pressure	0.005	0.012	0.022	0.033	0.047	0.064	0.084	0.106	0.131	0.158
	NC (Noise Criteria)	-	-	-	-	11	16	20	23	27	30
	Throw	1-1-4	1-2-4	2-4-6	3-5-9	4-6-10	4-7-11	5-8-11	6-9-12	6-9-13	7-9-14
8 x 8	Airflow, cfm	89	133	177	222	267	311	356	400	444	489
	Total Pressure	0.009	0.019	0.034	0.053	0.077	0.104	0.136	0.173	0.213	0.258
	NC (Noise Criteria)	-	-	-	-	14	19	23	26	30	33
	Throw	1-2-5	1-3-8	2-4-10	4-6-12	5-8-13	6-9-14	7-10-15	8-11-16	8-12-17	9-13-18
10 x 10	Airflow, cfm	139	208	277	347	417	485	555	625	695	765
	Total Pressure	0.013	0.029	0.052	0.080	0.115	0.156	0.204	0.258	0.319	0.386
	NC (Noise Criteria)	-	-	-	-	16	21	26	29	32	35
	Throw	1-2-6	2-4-9	3-6-12	5-8-15	6-9-16	7-11-18	8-13-19	9-14-20	10-15-21	12-16-22
12 x 12	Airflow, cfm	200	300	400	500	600	700	800	900	1000	1100
	Total Pressure	0.018	0.040	0.071	0.112	0.161	0.219	0.287	0.363	0.448	0.542
	NC (Noise Criteria)	-	-	-	12	18	23	27	31	34	37
	Throw	1-2-8	2-5-11	4-7-14	6-9-18	8-11-20	9-13-21	10-15-23	11-17-24	13-18-25	14-19-27
14 x 14	Airflow, cfm	272	408	541	681	817	953	1090	1225	1360	1495
	Total Pressure	0.024	0.054	0.097	0.150	0.216	0.294	0.385	0.485	0.600	0.727
	NC (Noise Criteria)	-	-	-	14	19	24	29	32	36	39
	Throw	1-2-9	2-5-13	5-8-17	7-11-21	9-13-23	10-15-25	12-18-26	13-20-28	15-21-30	16-22-31

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