

DIFFUSERS

F Diffusers | Square Ceiling, Adjustable | Performance Data

Performance Data (continued)

TMSA • Square Ceiling • Round Neck • High Performance • Horizontal to Vertical Discharge

F112

PERFORMANCE DATA

		Neck Velocity	400	500	600	700	800	1000	1200	1400	1600
		Velocity Pressure	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
6" Dia.	Airflow, cfm		78	98	118	137	157	196	235	274	314
	Total Pressure	Horizontal	0.018	0.028	0.040	0.055	0.072	0.112	0.162	0.220	0.287
		Vertical	0.019	0.030	0.043	0.058	0.076	0.118	0.171	0.232	0.303
	Throw feet	Horizontal	2-3-5	2-3-6	3-4-7	3-5-8	3-6-8	4-7-9	4-7-10	4-7-11	5-8-12
		Vertical	0-1-1	1-1-2	1-1-2	1-1-2	1-1-3	1-1-4	1-2-4	1-2-4	1-2-5
NC (Noise Criteria)	Horizontal	-	-	-	14	18	25	30	35	39	
	Vertical	-	-	-	13	17	24	29	34	38	
8" Dia.	Airflow, cfm		140	175	209	244	279	349	419	489	558
	Total Pressure	Horizontal	0.018	0.028	0.041	0.056	0.073	0.114	0.164	0.223	0.291
		Vertical	0.022	0.034	0.049	0.067	0.088	0.137	0.197	0.269	0.351
	Throw feet	Horizontal	2-3-5	2-3-6	3-4-8	3-5-9	3-5-10	4-6-11	5-8-12	6-9-13	7-10-14
		Vertical	0-1-1	1-1-2	1-1-2	1-1-2	1-1-3	1-2-4	1-2-4	2-2-5	2-3-6
NC (Noise Criteria)	Horizontal	-	-	12	17	21	28	33	38	42	
	Vertical	-	-	12	16	20	27	32	37	41	
10" Dia.	Airflow, cfm		218	273	327	382	436	545	654	763	872
	Total Pressure	Horizontal	0.018	0.029	0.041	0.056	0.073	0.114	0.164	0.224	0.292
		Vertical	0.030	0.047	0.068	0.092	0.120	0.188	0.271	0.369	0.482
	Throw feet	Horizontal	2-3-6	3-4-8	3-5-10	4-6-11	4-6-13	5-8-14	6-10-15	8-11-17	9-13-18
		Vertical	1-1-2	1-1-2	1-1-3	1-2-3	1-2-4	1-2-4	2-3-5	2-3-6	2-4-7
NC (Noise Criteria)	Horizontal	-	-	15	20	24	31	37	41	45	
	Vertical	-	12	18	22	26	33	38	43	47	
12" Dia.	Airflow, cfm		314	393	471	550	628	785	942	1099	1256
	Total Pressure	Horizontal	0.018	0.029	0.041	0.056	0.073	0.114	0.165	0.224	0.293
		Vertical	0.040	0.063	0.090	0.123	0.161	0.251	0.361	0.492	0.642
	Throw feet	Horizontal	3-4-8	3-5-10	4-6-12	5-7-14	5-8-15	6-10-17	8-12-18	9-14-20	10-15-21
		Vertical	1-1-2	1-1-3	1-2-3	1-2-4	1-2-4	2-3-5	2-3-6	2-4-7	3-4-9
NC (Noise Criteria)	Horizontal	-	12	18	23	27	34	39	44	48	
	Vertical	-	17	23	27	31	38	43	48	52	
14" Dia.	Airflow, cfm		428	535	641	748	855	1069	1283	1497	1710
	Total Pressure	Horizontal	0.029	0.045	0.065	0.089	0.116	0.181	0.261	0.355	0.464
		Vertical	0.044	0.068	0.098	0.134	0.175	0.273	0.393	0.535	0.699
	Throw feet	Horizontal	5-8-15	6-10-19	8-11-21	9-13-22	10-15-24	13-19-27	15-21-29	18-22-31	19-24-34
		Vertical	2-5-7	3-6-8	5-6-9	6-7-10	6-7-10	7-8-12	7-9-13	8-10-14	8-10-15
NC (Noise Criteria)	Horizontal	-	-	12	18	23	32	39	45	50	
	Vertical	12	18	23	28	32	38	43	48	51	
15" Dia.	Airflow, cfm		491	614	736	859	982	1227	1472	1718	1963
	Total Pressure	Horizontal	0.031	0.048	0.069	0.094	0.123	0.192	0.277	0.377	0.492
		Vertical	0.041	0.064	0.092	0.125	0.164	0.256	0.369	0.502	0.655
	Throw feet	Horizontal	5-8-16	7-10-20	8-12-22	10-14-24	11-16-25	14-20-28	16-22-31	19-24-34	21-25-36
		Vertical	2-5-8	4-6-9	5-7-10	6-7-10	6-8-11	7-9-12	8-10-14	8-10-15	9-11-16
NC (Noise Criteria)	Horizontal	-	-	13	19	24	32	39	45	50	
	Vertical	-	17	22	27	31	37	42	47	50	

- Data obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-2006. Actual performance, with flexible duct inlet, may vary in the field. See the Engineering Guidelines section of this catalog for additional information.
- If the diffuser is mounted on an exposed duct, the throw values are 70% of those listed in the table.
- Throw values given are for terminal velocities of 150, 100 and 50 fpm and for isothermal conditions. See the section, Engineering Guidelines for the catalog throw data information.
- NC values based on octave band 2 to 7 sound power levels minus a room absorption of 10 dB.

- Dash (-) in space denotes an NC value of less than 10.
- All pressures are given in inches of water.
- 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.
- To obtain static pressure, subtract the velocity pressure from the total pressure.
- Horizontal throw is along a surface.
- Vertical throw is a free jet.

