

TMSA / SQUARE CEILING / ROUND NECK / HIGH PERFORMANCE / HORIZONTAL TO VERTICAL DISCHARGE

		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	
12" x 12" Module Size	4" Dia.	Airflow, cfm	35	44	52	61	70	87	105	122	140	
		Total Pressure	Horizontal	0.012	0.018	0.026	0.036	0.046	0.072	0.104	0.142	0.185
			Vertical	0.013	0.021	0.030	0.041	0.053	0.083	0.120	0.164	0.214
		Throw feet	Horizontal	1-1-2	1-2-3	1-2-4	1-2-4	2-2-5	2-3-6	2-4-7	3-4-8	3-5-8
			Vertical	1-1-2	1-1-2	1-1-3	1-2-3	1-2-3	1-2-3	2-3-4	2-3-4	2-3-4
	NC (Noise Criteria)	Horizontal	-	-	-	-	13	20	25	30	34	
		Vertical	-	-	-	-	-	16	21	26	30	
	5" Dia.	Airflow, cfm	55	68	82	95	109	136	164	191	218	
		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	0.066	0.086	0.135	0.194	0.265	0.346
		Throw feet	Horizontal	1-2-3	1-2-4	2-2-5	2-3-5	2-3-6	3-4-8	3-5-9	4-5-10	4-6-10
			Vertical	1-1-2	1-1-3	1-2-3	1-2-3	1-2-4	2-3-4	2-3-5	3-3-5	3-4-5
	NC (Noise Criteria)	Horizontal	-	-	-	14	18	25	31	36	40	
		Vertical	-	-	-	12	15	22	27	32	36	
	6" Dia.	Airflow, cfm	78	98	118	137	157	196	235	274	314	
		Total Pressure	Horizontal	0.026	0.041	0.059	0.080	0.105	0.164	0.236	0.321	0.419
			Vertical	0.032	0.049	0.071	0.097	0.126	0.198	0.284	0.387	0.506
		Throw feet	Horizontal	1-2-4	2-2-5	2-3-6	2-3-7	2-4-7	3-5-9	4-6-11	4-7-12	5-7-13
			Vertical	1-1-3	1-2-3	1-2-4	2-2-4	2-3-4	2-3-5	3-4-5	3-4-6	4-4-6
	NC (Noise Criteria)	Horizontal	-	-	14	19	23	30	36	40	45	
Vertical		-	-	12	17	21	27	32	37	41		
7" Dia.	Airflow, cfm	107	134	160	187	214	267	320	374	427		
	Total Pressure	Horizontal	0.036	0.056	0.080	0.110	0.143	0.223	0.322	0.438	0.572	
		Vertical	0.044	0.068	0.098	0.133	0.174	0.272	0.392	0.533	0.696	
	Throw feet	Horizontal	1-2-4	2-3-5	2-3-7	3-4-8	3-4-9	4-5-11	4-7-13	5-8-14	6-9-15	
		Vertical	1-2-3	1-2-4	2-2-4	2-3-5	2-3-5	3-4-6	3-4-6	4-5-7	4-5-7	
NC (Noise Criteria)	Horizontal	-	12	18	23	27	34	40	44	49		
	Vertical	-	-	16	21	25	31	37	41	45		
8" Dia.	Airflow, cfm	140	175	209	244	279	349	419	489	558		
	Total Pressure	Horizontal	0.047	0.073	0.105	0.143	0.187	0.292	0.421	0.573	0.748	
		Vertical	0.057	0.090	0.129	0.175	0.229	0.358	0.516	0.702	0.917	
	Throw feet	Horizontal	2-2-5	2-3-6	2-4-7	3-4-9	3-5-10	4-6-12	5-7-14	6-9-16	7-10-17	
		Vertical	1-2-4	1-2-4	2-3-5	2-3-6	2-4-6	3-4-7	4-5-7	4-6-8	5-6-8	
NC (Noise Criteria)	Horizontal	-	16	22	26	31	37	43	48	52		
	Vertical	-	15	20	25	29	35	41	45	49		

- 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 are 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<sup>-12</sup> 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 the velocity pressure from the total pressure
- Horizontal throw is along a surface
- Vertical throw is a free jet



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		Velocity Pressure	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160	
24" x 24" Module Size	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		

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