

ENGINEERING DATA

VB



	Neck Velocity	400	500	600	700	800	900	1000	1200	1400	1600
	Velocity Pressure	0.010	0.016	0.022	0.031	0.040	0.050	0.062	0.090	0.122	0.160
10	Airflow (CFM)	220	270	330	380	435	490	545	655	765	870
	Total Pressure, Horizontal	0.012	0.019	0.027	0.037	0.048	0.061	0.076	0.109	0.148	0.194
	Total Pressure, Vertical	0.021	0.033	0.047	0.064	0.083	0.105	0.130	0.187	0.255	0.333
	Noise Criteria, Horizontal	-	17	22	27	31	35	38	44	49	53
	Noise Criteria, Vertical	-	14	19	24	28	32	35	41	46	50
	Throw feet, Horizontal	1-2-4	2-2-5	2-3-6	2-3-7	3-4-8	3-4-9	3-5-10	4-6-12	4-7-13	5-8-15
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	16	20	24	28	32	36	40	48	56	63
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	5	7	8	9	11	12	13	16	19	21	
12	Airflow (CFM)	315	390	470	550	630	705	785	940	1100	1255
	Total Pressure, Horizontal	0.012	0.019	0.028	0.038	0.050	0.063	0.078	0.113	0.153	0.200
	Total Pressure, Vertical	0.021	0.032	0.046	0.063	0.083	0.104	0.129	0.186	0.253	0.330
	Noise Criteria, Horizontal	11	18	23	28	32	36	39	45	50	54
	Noise Criteria, Vertical	-	15	20	25	29	33	36	42	47	51
	Throw feet, Horizontal	2-2-5	2-3-6	2-3-7	3-4-8	3-5-9	3-5-10	4-6-12	5-7-14	5-8-16	6-9-18
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	14	20	24	28	33	36	41	49	57	65
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	4	6	8	9	11	12	14	16	19	22	
14	Airflow (CFM)	425	530	635	745	850	955	1060	1270	1490	1695
	Total Pressure, Horizontal	0.012	0.019	0.028	0.038	0.050	0.063	0.078	0.113	0.153	0.200
	Total Pressure, Vertical	0.020	0.032	0.046	0.063	0.082	0.103	0.128	0.184	0.250	0.327
	Noise Criteria, Horizontal	12	19	24	29	33	37	40	46	51	55
	Noise Criteria, Vertical	-	16	21	26	30	34	37	44	48	52
	Throw feet, Horizontal	2-3-5	2-3-7	3-4-8	3-5-9	4-5-11	4-6-12	4-7-13	5-8-16	6-9-19	7-11-21
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	13	20	26	31	35	39	44	52	61	70
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	4	6	8	10	12	13	15	17	20	23	
18	Airflow (CFM)	710	885	1060	1240	1420	1590	1770	2120	2480	2830
	Total Pressure, Horizontal	0.011	0.018	0.028	0.038	0.050	0.063	0.078	0.113	0.153	0.200
	Total Pressure, Vertical	0.020	0.031	0.045	0.061	0.079	0.101	0.124	0.179	0.243	0.318
	Noise Criteria, Horizontal	13	20	26	31	35	38	42	47	52	56
	Noise Criteria, Vertical	-	17	23	28	32	35	39	44	49	53
	Throw feet, Horizontal	2-3-7	3-4-9	3-5-10	4-6-12	5-7-14	5-8-16	6-9-17	7-10-21	8-12-24	9-14-28
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	14	21	30	37	42	47	53	63	74	84
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	4	6	9	12	14	16	18	21	25	28	
20	Airflow (CFM)	875	1100	1310	1530	1750	1970	2190	2610	3060	3500
	Total Pressure, Horizontal	0.011	0.017	0.028	0.038	0.050	0.063	0.078	0.113	0.153	0.200
	Total Pressure, Vertical	0.020	0.031	0.044	0.060	0.078	0.099	0.122	0.176	0.239	0.312
	Noise Criteria, Horizontal	14	21	26	31	35	39	42	48	53	57
	Noise Criteria, Vertical	11	18	23	28	32	36	39	45	50	54
	Throw feet, Horizontal	3-4-8	3-5-10	4-6-12	4-7-13	5-8-15	6-9-17	6-10-19	8-11-23	9-13-27	10-15-31
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	14	23	32	40	46	52	57	68	80	92
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	4	7	9	13	15	17	19	23	27	31	
24	Airflow (CFM)	1260	1570	1880	2200	2510	2820	3140	3770	4400	5020
	Total Pressure, Horizontal	0.010	0.016	0.028	0.038	0.050	0.063	0.078	0.113	0.153	0.200
	Total Pressure, Vertical	0.019	0.029	0.042	0.057	0.075	0.095	0.117	0.169	0.230	0.300
	Noise Criteria, Horizontal	15	22	27	32	36	40	43	49	54	58
	Noise Criteria, Vertical	12	19	24	29	33	37	40	46	51	55
	Throw feet, Horizontal	3-5-9	4-6-12	5-7-14	5-8-16	6-9-18	7-10-21	8-12-23	9-14-28	11-16-32	12-18-37
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	16	25	35	47	54	60	67	81	94	107
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	5	7	10	14	18	20	22	27	31	36	
30	Airflow (CFM)	1963	2454	2945	3636	3927	4418	4909	5890	6872	7854
	Total Pressure, Horizontal	0.017	0.027	0.039	0.053	0.069	0.088	0.108	0.156	0.213	0.278
	Total Pressure, Vertical	0.009	0.014	0.020	0.027	0.036	0.045	0.056	0.081	0.110	0.144
	Noise Criteria, Horizontal	16	23	29	34	38	41	45	50	55	59
	Noise Criteria, Vertical	13	20	26	31	35	38	42	47	52	56
	Throw feet, Horizontal	4-6-12	5-7-14	6-9-17	7-10-20	8-12-23	9-13-26	10-14-29	12-17-35	13-20-40	15-23-46
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	19	29	42	57	66	74	82	99	115	132
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	2	3	5	7	9	11	14	20	25	28	
36	Airflow (CFM)	2827	3534	4241	4948	5655	6362	7069	8482	9896	11310
	Total Pressure, Horizontal	0.016	0.024	0.035	0.048	0.063	0.079	0.098	0.141	0.191	0.250
	Total Pressure, Vertical	0.007	0.012	0.017	0.023	0.030	0.038	0.046	0.067	0.091	0.119
	Noise Criteria, Horizontal	17	24	30	35	39	42	46	51	56	60
	Noise Criteria, Vertical	14	21	27	32	36	39	43	48	53	57
	Throw feet, Horizontal	5-7-14	6-9-17	7-10-21	8-12-24	9-14-28	10-16-31	12-17-35	14-21-41	16-24-48	18-28-55
	Throw feet, Vertical, 20° F Cool ΔT, 50 FPM	22	34	49	67	78	88	98	117	137	156
Throw feet, Vertical, 40° F Cool ΔT, 50 FPM	1	2	3	4	5	6	8	11	15	20	

Notes:

1. All pressures are given in inches of water.
2. Radius of diffusion values are given for a terminal velocity of 50 fpm with a 20 °F cooling temperature differential.
3. Vertical projection values are given for a terminal velocity of 50 fpm. Minimum projections are for a 40 °F heating temperature differential, while maximum projections are for a 20 °F cooling differential.
4. NC values are based on a room absorption of 10dB, re 10⁻¹ watts. Values shown are for the horizontal discharge patterns (center closed). For the vertical pattern (center open), subtract three.
5. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-1991. Actual performance with flexible duct inlet may vary in the field.

