

Nominal Duct Size (in.)	Nominal Duct Area (sq. ft.)	Core Area (sq. ft.)	Core Velocity (fpm)		100	200	300	400	500	600	700	800	900	1000
			Velocity Pressure (in. w.g.)	Total Pressure (in. w.g.)	0.001	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.051	0.062
8" x 4"	0.22	0.16	Air Flow (cfm)		15	30	50	65	80	95	110	130	145	160
			NC (dB)		--	--	--	15	21	26	30	33	36	39
			Throw (ft.)				7 - 6 - 9	5 - 7 - 12	6 - 9 - 14	7 - 11 - 17	8 - 12 - 20	9 - 14 - 22	10 - 15 - 21	12 - 17 - 24
			4-Way				4 - 6 - 10	5 - 8 - 13	6 - 9 - 15	8 - 12 - 19	9 - 14 - 22	10 - 14 - 22	11 - 16 - 23	12 - 18 - 26
			3-Way				5 - 7 - 11	6 - 9 - 14	7 - 11 - 17	9 - 13 - 21	10 - 14 - 20	11 - 16 - 23	12 - 18 - 26	14 - 21 - 33
2-Way				5 - 8 - 13	7 - 11 - 17	9 - 13 - 21	10 - 15 - 21	12 - 17 - 25	13 - 20 - 32	15 - 22 - 36	17 - 25 - 40			
1-Way														
10" x 4" 6" x 6"	0.28	0.20	Air Flow (cfm)		20	40	60	80	100	120	140	160	180	200
			NC (dB)		--	--	--	16	22	27	31	34	37	40
			Throw (ft.)				4 - 6 - 9	5 - 8 - 13	6 - 9 - 15	8 - 11 - 18	9 - 13 - 21	10 - 14 - 20	11 - 16 - 23	12 - 17 - 25
			4-Way				4 - 6 - 10	6 - 9 - 14	7 - 10 - 16	8 - 12 - 20	10 - 13 - 19	11 - 15 - 22	12 - 17 - 25	13 - 20 - 32
			3-Way				5 - 7 - 11	6 - 9 - 15	8 - 11 - 18	9 - 14 - 22	10 - 15 - 21	12 - 17 - 25	13 - 20 - 32	15 - 22 - 35
2-Way				6 - 9 - 14	8 - 11 - 18	9 - 14 - 22	11 - 15 - 22	12 - 18 - 26	14 - 21 - 34	16 - 24 - 38	18 - 26 - 42			
1-Way														
12" x 4" 8" x 6"	0.33	0.26	Air Flow (cfm)		25	50	80	105	130	155	180	210	235	260
			NC (dB)		--	--	--	17	23	28	32	35	38	41
			Throw (ft.)				3 - 4 - 7	4 - 5 - 6	6 - 9 - 14	7 - 10 - 16	8 - 12 - 20	10 - 13 - 19	11 - 15 - 22	12 - 17 - 25
			4-Way				3 - 4 - 7	5 - 6 - 7	6 - 9 - 15	8 - 11 - 18	9 - 13 - 21	10 - 14 - 20	11 - 16 - 23	13 - 19 - 31
			3-Way				3 - 5 - 8	5 - 6 - 8	7 - 9 - 12	8 - 12 - 20	10 - 14 - 20	11 - 16 - 23	13 - 19 - 31	14 - 21 - 34
2-Way				4 - 5 - 6	6 - 8 - 11	8 - 11 - 15	10 - 14 - 20	12 - 17 - 24	13 - 20 - 32	15 - 23 - 37	17 - 26 - 41	19 - 28 - 45		
1-Way														
14" x 4"	0.38	0.30	Air Flow (cfm)		30	60	90	120	150	180	210	240	270	300
			NC (dB)		--	--	--	18	23	28	32	36	39	42
			Throw (ft.)				3 - 4 - 7	4 - 5 - 9	6 - 8 - 10	7 - 10 - 13	9 - 12 - 17	10 - 14 - 20	11 - 16 - 23	12 - 18 - 26
			4-Way				3 - 5 - 8	5 - 6 - 10	6 - 9 - 15	8 - 11 - 15	9 - 13 - 18	10 - 15 - 21	12 - 17 - 25	13 - 20 - 32
			3-Way				3 - 5 - 8	5 - 7 - 11	7 - 10 - 13	9 - 12 - 17	10 - 14 - 20	12 - 17 - 24	13 - 20 - 32	16 - 24 - 38
2-Way				4 - 5 - 6	6 - 8 - 12	8 - 11 - 16	10 - 15 - 21	12 - 17 - 25	14 - 21 - 34	16 - 24 - 38	18 - 27 - 43	10 - 29 - 47		
1-Way														
16" x 4" 10" x 6" 8" x 8"	0.44	0.35	Air Flow (cfm)		35	70	105	140	175	210	245	280	315	350
			NC (dB)		--	--	--	18	24	29	33	37	39	42
			Throw (ft.)				3 - 4 - 7	5 - 7 - 11	6 - 9 - 15	8 - 11 - 18	9 - 13 - 21	10 - 15 - 21	12 - 17 - 24	13 - 19 - 31
			4-Way				3 - 5 - 8	5 - 7 - 12	6 - 9 - 15	8 - 12 - 19	10 - 13 - 19	11 - 15 - 22	14 - 19 - 30	14 - 21 - 33
			3-Way				4 - 6 - 9	5 - 8 - 13	7 - 10 - 13	9 - 13 - 21	10 - 15 - 21	12 - 17 - 25	14 - 21 - 33	15 - 23 - 37
2-Way				4 - 5 - 10	7 - 9 - 12	9 - 12 - 17	10 - 15 - 21	12 - 18 - 26	15 - 22 - 35	17 - 25 - 40	18 - 27 - 44	20 - 31 - 49		
1-Way														
12" x 6"	0.50	0.40	Air Flow (cfm)		40	80	120	160	200	240	280	320	360	400
			NC (dB)		--	--	--	19	25	30	34	37	40	43
			Throw (ft.)				3 - 5 - 8	5 - 6 - 7	6 - 8 - 11	8 - 11 - 15	9 - 13 - 18	11 - 15 - 22	12 - 17 - 25	13 - 20 - 32
			4-Way				3 - 5 - 8	5 - 6 - 8	7 - 9 - 12	8 - 11 - 16	10 - 14 - 20	11 - 16 - 20	13 - 19 - 31	15 - 22 - 35
			3-Way				4 - 6 - 9	6 - 8 - 10	8 - 10 - 14	9 - 13 - 18	11 - 15 - 22	12 - 18 - 26	14 - 21 - 34	16 - 24 - 38
2-Way				5 - 6 - 7	7 - 9 - 12	9 - 13 - 18	11 - 15 - 22	13 - 19 - 31	15 - 22 - 36	17 - 26 - 41	19 - 29 - 46	21 - 32 - 51		
1-Way														
14" x 6" 10" x 8"	0.58	0.45	Air Flow (cfm)		45	90	135	180	225	270	315	360	405	450
			NC (dB)		--	--	--	19	26	30	34	38	41	44
			Throw (ft.)				3 - 5 - 8	5 - 6 - 8	6 - 9 - 15	8 - 12 - 19	10 - 13 - 19	11 - 15 - 22	12 - 18 - 26	14 - 21 - 33
			4-Way				3 - 5 - 8	5 - 7 - 9	7 - 11 - 17	9 - 13 - 21	10 - 14 - 20	12 - 14 - 24	13 - 20 - 32	15 - 22 - 36
			3-Way				4 - 6 - 9	6 - 8 - 10	8 - 12 - 19	10 - 13 - 19	11 - 16 - 23	13 - 19 - 31	15 - 22 - 35	16 - 24 - 39
2-Way				5 - 7 - 11	7 - 11 - 17	9 - 14 - 22	11 - 16 - 23	13 - 20 - 32	15 - 23 - 37	18 - 26 - 42	18 - 27 - 44	21 - 31 - 50		
1-Way														
16" x 6" 12" x 8"	0.67	0.55	Air Flow (cfm)		55	110	165	220	275	330	385	440	495	550
			NC (dB)		--	--	--	20	26	31	35	39	41	44
			Throw (ft.)				2 - 3 - 4	3 - 5 - 8	5 - 7 - 12	7 - 10 - 16	8 - 12 - 20	10 - 14 - 20	12 - 17 - 24	13 - 19 - 31
			4-Way				2 - 3 - 5	4 - 6 - 9	5 - 8 - 13	8 - 11 - 18	9 - 14 - 22	11 - 15 - 22	12 - 18 - 26	14 - 21 - 33
			3-Way				2 - 3 - 5	4 - 6 - 10	6 - 9 - 15	8 - 12 - 20	10 - 14 - 20	12 - 17 - 25	14 - 21 - 33	15 - 23 - 37
2-Way				2 - 4 - 6	5 - 7 - 12	8 - 11 - 18	10 - 13 - 19	12 - 17 - 25	14 - 21 - 34	16 - 24 - 39	18 - 27 - 44	21 - 31 - 50	23 - 35 - 56	
1-Way														

Performance notes appear at the end of the performance data.

Nominal Duct Size (in.)	Nominal Duct Area (sq. ft.)	Core Area (sq. ft.)	Core Velocity (fpm)		100	200	300	400	500	600	700	800	900	1000	
			Velocity Pressure (in. w.g.)	Total Pressure (in. w.g.)	0.001	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.051	0.062	
18" x 6" 10" x 10"	0.75	0.62	Air Flow (cfm)		60	125	185	250	310	370	435	495	560	620	
			NC (dB)					21	27	32	36	39	42	45	
			Throw (ft.)		4-Way	2-3-4	4-6-9	5-8-13	7-11-17	9-13-21	10-15-21	12-17-24	13-20-32	15-22-36	17-25-40
					3-Way	2-3-5	4-6-9	6-9-14	8-11-18	9-14-22	11-16-23	13-19-31	14-21-34	16-24-39	18-27-43
					2-Way	2-3-5	4-6-10	6-9-15	8-12-20	10-16-25	12-17-25	14-21-34	16-24-38	18-27-43	20-29-47
		1-Way	2-3-6	5-7-12	8-11-18	10-14-20	12-19-30	15-22-35	17-26-41	19-29-46	21-32-51	24-36-57			
20" x 6" 14" x 8" 12" x 10"	0.83	0.70	Air Flow (cfm)		70	140	210	280	350	420	490	560	630	700	
			NC (dB)					21	27	32	36	40	42	45	
			Throw (ft.)		4-Way	2-3-5	4-6-9	5-8-13	7-11-17	9-13-21	10-15-21	12-17-25	14-21-33	15-23-37	17-26-41
					3-Way	2-3-5	4-6-9	6-9-14	8-12-19	10-13-19	11-16-23	13-20-32	15-22-36	17-25-40	18-27-44
					2-Way	2-4-6	5-7-11	7-10-16	9-13-21	10-15-21	12-18-21	15-22-35	17-25-40	20-31-49	21-31-50
		1-Way	3-4-7	5-8-13	8-12-19	10-15-21	12-19-30	15-22-36	18-26-42	20-29-47	22-33-53	25-37-59			
16" x 8" 14" x 10"	0.89	0.81	Air Flow (cfm)		80	160	245	325	405	485	565	650	730	810	
			NC (dB)				15	22	28	33	37	40	43	46	
			Throw (ft.)		4-Way	2-3-5	4-6-9	6-9-14	8-11-18	9-14-22	11-15-21	12-18-26	14-21-34	16-24-38	18-27-43
					3-Way	2-3-5	4-6-10	6-9-15	8-12-20	11-15-22	12-17-24	14-21-33	15-23-37	17-26-41	19-29-46
					2-Way	2-4-6	5-7-11	7-10-16	9-14-22	11-15-22	13-19-31	15-22-36	17-26-41	19-29-46	21-32-51
		1-Way	3-4-7	5-8-13	8-12-20	11-15-22	13-20-32	16-24-38	18-27-44	20-31-49	23-34-55	26-39-62			
12" x 12"	1.00	0.87	Air Flow (cfm)		85	175	260	350	435	520	610	695	785	870	
			NC (dB)				15	22	28	33	37	40	43	46	
			Throw (ft.)		4-Way	2-3-5	4-6-9	6-9-14	8-12-19	10-13-19	11-16-23	13-19-31	15-22-35	16-24-39	18-27-43
					3-Way	2-3-5	4-6-10	6-9-15	8-12-20	10-15-21	12-17-25	14-21-33	16-24-38	18-26-42	20-29-47
					2-Way	2-4-6	5-7-11	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-29-47	22-32-52
		1-Way	3-4-7	6-9-14	8-12-20	11-15-22	13-20-32	16-24-39	19-28-45	21-31-50	23-35-56	26-39-63			
30" x 6" 20" x 8" 16" x 10" 14" x 12"	1.11	1.02	Air Flow (cfm)		100	205	305	410	510	610	715	815	920	1020	
			NC (dB)				16	23	29	34	38	41	44	47	
			Throw (ft.)		4-Way	2-3-5	4-6-10	6-9-15	8-12-19	10-14-20	12-17-24	13-20-32	15-22-36	17-26-41	19-28-45
					3-Way	2-4-6	4-6-10	7-10-16	9-13-21	10-16-25	12-18-26	15-22-35	16-24-39	18-27-44	20-30-48
					2-Way	2-4-6	4-6-10	7-10-16	9-13-21	10-16-25	12-18-26	15-22-35	16-24-39	18-27-44	20-30-48
14" x 14"	1.36	1.25	Air Flow (cfm)		125	250	375	500	625	750	875	1000	1120	1250	
			NC (dB)				16	24	30	35	39	42	45	48	
			Throw (ft.)		4-Way	2-3-5	4-5-6	6-8-11	8-12-20	10-15-21	12-17-25	14-21-34	16-24-38	18-27-43	20-29-47
					3-Way	2-4-6	5-6-7	7-9-12	9-14-22	11-16-23	13-20-32	15-32-37	17-26-41	19-29-46	21-32-51
					1-Way	3-5-8	6-8-11	9-13-18	12-17-25	15-22-35	18-26-42	20-30-48	23-34-55	26-39-62	29-43-69
16" x 16"	1.78	1.53	Air Flow (cfm)		155	305	460	610	765	920	1070	1220	1380	1530	
			NC (dB)				17	25	31	36	40	43	46	49	
			Throw (ft.)		4-Way	2-4-6	5-6-7	7-10-16	9-13-21	11-15-22	13-19-31	15-22-36	17-25-40	19-28-45	21-31-50
					3-Way	2-4-6	5-6-8	7-11-17	10-13-19	12-17-24	14-21-33	16-24-39	18-27-44	20-31-49	22-34-54
					2-Way	3-4-7	5-7-9	8-12-19	10-15-21	13-20-32	15-23-37	18-27-43	20-30-48	23-34-55	25-37-60
		1-Way	3-5-8	7-9-12	10-13-19	12-18-26	15-23-37	18-27-44	21-32-51	24-36-58	27-41-65	30-46-73			
18" x 18"	2.25	2.10	Air Flow (cfm)		210	420	630	840	1050	1260	1470	1680	1890	2100	
			NC (dB)				19	26	32	37	41	44	47	50	
			Throw (ft.)		4-Way	2-4-6	5-6-8	8-11-18	10-13-19	12-17-24	14-21-34	16-24-39	18-27-44	20-31-49	23-24-55
					3-Way	3-4-7	5-7-9	8-12-19	10-15-21	12-18-26	15-22-36	18-26-42	20-29-47	22-33-53	25-37-59
					2-Way	3-4-7	5-7-9	8-12-19	10-15-21	12-18-26	15-22-36	18-26-42	20-29-47	22-33-53	25-37-59
20" x 18"	2.50	2.35	Air Flow (cfm)		235	470	705	940	1180	1410	1640	1880	2120	2350	
			NC (dB)				19	27	33	37	41	45	48	51	
			1-Way		4-6-9	7-10-13	11-15-22	14-21-33	18-26-42	20-31-49	24-36-57	27-40-64	30-45-72	34-51-82	

Performance notes appear at the end of the performance data.

Nominal Duct Size (in.)	Nominal Duct Area (sq. ft.)	Core Area (sq. ft.)	Core Velocity (fpm)										
			100	200	300	400	500	600	700	800	900	1000	
			Velocity Pressure (in. w.g.)	0.001	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.051	0.062
			Total Pressure (in. w.g.)	0.003	0.015	0.032	0.058	0.094	0.136	0.182	0.234	0.302	0.369
20" x 20"	2.78	2.68	Air Flow (cfm)	270	535	805	1070	1340	1610	1880	2140	2410	2680
			NC (dB)			20	27	33	38	42	45	48	51
			4-Way	3 - 4 - 7	5 - 7 - 9	8 - 12 - 19	10 - 15 - 21	12 - 18 - 26	15 - 22 - 36	18 - 26 - 42	20 - 29 - 47	22 - 32 - 52	25 - 37 - 59

- Throw data is given for isothermal conditions.
- Terminal velocities are listed 150, 100 and 50 FPM.
- NC values are based on room absorption of 10 dB re 10<sup>-12</sup> watts.
- Blanks “—” indicate NC value of less than 15 dB.
- Performance data is based on the outer deflector being set with an 1/8” opening between the frame and the openings progressively increasing between each deflector further from the frame. This setting will cause the leaving air to discharge parallel to the face and the mounting surface; in a ceiling location the air will be discharge horizontally along the ceiling.
- The throw performance may be increased or decreased as much as 20% by changing the deflector setting.
- If all of the deflectors are set to the full open position, the listed NC values will be reduced by 6 dB and the total pressure will be 0.30 times of the listed total pressure value. The throw will be a free jet perpendicular to the face and the mounting surface; in a ceiling location the air will be discharge vertically.