

Design: Vine



Core Area Sq. Feet	Nominal Duct Size in Inches	Core Velocity	100	200	300	400	500	600	700	800	900	1000
		Velocity Pressure	0.001	0.002	0.006	0.01	0.016	0.022	0.031	0.04	0.051	0.062
		TP: Total Pressure	0.003	0.014	0.031	0.056	0.09	0.131	0.175	0.225	0.29	0.355
0.2	10x4 6x6	CFM	19	39	58	78	97	116	136	155	175	194
		NC				16	23	28	32	35	38	41
		4-Way, 45° Fixed			4-6-9	5-8-13	6-9-15	8-11-18	9-13-21	10-14-20	11-16-23	12-17-25
		2-Way, 45° Fixed			5-7-11	6-9-15	8-11-18	9-14-22	10-15-21	12-17-25	13-20-32	15-22-35
		1-Way, Straight			6-9-14	8-11-18	9-14-22	11-15-22	12-18-26	14-21-34	16-24-38	16-26-42
0.26	12x4 8x6	CFM	24	49	78	102	126	150	175	204	228	252
		NC			10	18	24	29	33	36	39	42
		4-Way, 45° Fixed		3-4-7	4-5-6	6-9-14	7-10-16	8-12-20	10-13-19	11-15-22	12-17-25	13-20-32
		2-Way, 45° Fixed		3-5-8	5-6-8	7-9-12	8-12-20	10-14-20	11-16-23	13-19-31	14-21-34	16-24-38
		1-Way, Straight		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
0.3	14x4	CFM	29	58	87	116	146	175	204	233	262	291
		NC			10	19	24	29	33	37	40	43
		4-Way, 45° Fixed		3-4-7	4-5-6	6-8-10	7-10-13	9-12-17	10-14-20	11-16-23	12-18-26	14-21-33
		2-Way, 45° Fixed		3-5-8	5-7-9	7-10-13	9-12-17	10-14-20	12-17-24	13-20-32	16-24-38/	16-24-39
		1-Way, Straight		4-5-6	6-8-11	8-11-16	10-15-21	12-17-25	14-21-34	16-24-38	18-27-43	20-29-47
0.35	16x4 12x5 10x6 8x8	CFM	34	68	102	136	170	204	238	272	306	340
		NC			11	19	25	30	34	38	40	43
		4-Way, 45° Fixed		3-4-7	5-7-11	6-9-15	8-11-18	9-13-21	10-15-21	12-17-24	13-19-31	14-21-34
		2-Way, 45° Fixed		4-6-9	5-8-13	7-10-13	9-13-21	10-15-21	12-17-25	14-21-33	15-23-37	17-26-41
		1-Way, Straight		4-5-6	7-9-12	9-12-17	10-15-21	12-18-26	15-22-35	17-25-40	18-27-44	20-31-49
0.4	18x4 12x6	CFM	39	78	116	155	194	233	272	310	349	388
		NC			12	20	26	31	35	38	41	44
		4-Way, 45° Fixed		3-5-8	5-6-7	6-8-11	8-11-15	9-13-18	11-15-22	12-17-25	13-20-32	15-22-35
		2-Way, 45° Fixed		4-6-9	6-8-10	8-10-14	9-13-18	11-15-22	12-18-26	14-21-34	16-24-38	18-26-42
		1-Way, Straight		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
0.45	20x4 14x6 10x8	CFM	44	87	131	175	218	262	306	349	393	437
		NC			12	20	27	31	35	39	42	45
		4-Way, 45° Fixed		3-5-8	5-6-8	6-9-15	8-12-19	10-13-19	11-15-22	12-18-26	14-21-33	15-23-37
		2-Way, 45° Fixed		4-6-9	6-8-10	8-12-19	10-13-19	11-16-23	13-19-31	15-22-35	16-24-39	18-27-44
		1-Way, Straight		5-7-11	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-29-47	22-33-53
0.55	24x4 16x6 12x8	CFM	53	107	160	213	267	320	373	427	480	534
		NC			13	21	27	32	36	40	42	45
		4-Way, 45° Fixed	2-3-4	3-5-8	5-7-12	7-10-16	8-12-20	10-14-20	12-17-24	13-19-31	15-22-35	16-24-39
		2-Way, 45° Fixed	2-3-5	6-6-10	6-9-15	8-12-20	10-14-20	12-17-25	14-21-33	15-23-37	17-26-41	19-29-46
		1-Way, Straight	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
0.62	18x6 10x10	CFM	58	121	179	243	301	359	422	480	543	601
		NC			13	22	28	33	37	40	43	46
		4-Way, 45° Fixed	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
		2-Way, 45° Fixed	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, Straight	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
0.7	30x4 20x6 14x8 12x10	CFM	68	136	204	272	340	407	475	543	611	679
		NC	0	0	14	22	28	33	37	41	43	46
		4-Way, 45° Fixed	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
		2-Way, 45° Fixed	2-4-6	5-7-11	7-10-16	9-13-20	10-15-21	12-18-26	15-22-35	17-25-40	18-27-44	20-31-49
		1-Way, Straight	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
0.81	36x4 24x6 16x8 14x10	CFM	78	155	238	315	393	470	548	631	708	786
		NC			15	23	29	34	38	41	44	47
		4-Way, 45° Fixed	2-3-5	4-6-9	6-9-14	8-11-18	9-14-22	11-15-22	12-18-26	14-21-34	16-24-38	18-27-43
		2-Way, 45° Fixed	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, Straight	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
0.87	18x8 12x12	CFM	82	170	252	340	422	504	592	674	761	844
		NC			15	23	29	34	38	41	44	47
		4-Way, 45° Fixed	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
		2-Way, 45° Fixed	2-4-6	5-7-11	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-31-47	22-32-52
		1-Way, Straight	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

Core Area Sq. Feet	Nominal Duct Size in Inches	Core Velocity	100	200	300	400	500	600	700	800	900	1000
		Velocity Pressure	0.001	0.002	0.006	0.01	0.016	0.022	0.031	0.04	0.051	0.062
		TP: Total Pressure	0.003	0.014	0.031	0.056	0.09	0.131	0.175	0.225	0.29	0.355
1.02	30x6 20x8 16x10 14x12	CFM	97	199	296	398	495	592	694	791	892	989
		NC			16	24	30	35	39	42	45	48
		4-Way, 45° Fixed	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
		2-Way, 45° Fixed	2-4-6	5-7-12	7-11-17	10-13-19	12-17-24	14-21-33	16-24-29	18-27-43	20-31-49	23-34-55
		1-Way, Straight	3-4-7	6-9-14	9-13-21	11-17-27	14-21-34	17-25-40	19-29-46	22-32-52	25-37-59	27-41-65
1.15	24x8 18x10 16x12	CFM	112	223	335	446	558	669	781	892	1009	1116
		NC			16	25	31	35	39	43	46	49
		4-Way, 45° Fixed	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	19-29-46
		2-Way, 45° Fixed	2-4-6	5-7-12	8-11-18	10-13-19	12-17-25	14-21-34	17-25-40	19-28-45	21-31-50	23-35-56
		1-Way, Straight	3-5-8	6-9-15	9-14-22	12-17-24	15-22-35	17-26-41	20-29-47	22-34-54	25-37-60	28-42-68
1.25	36x6 20x10 14x14	CFM	121	243	364	485	606	728	849	970	1086	1213
		NC			16	25	31	36	40	43	46	49
		4-Way, 45° Fixed	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
		2-Way, 45° Fixed	2-4-6	5-6-8	8-10-14	10-14-20	12-18-26	15-22-35	17-26-41	19-29-46	21-32-51	24-26-57
		1-Way, Straight	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
1.35	16x14 18x12	CFM	131	262	393	524	655	786	917	1048	1183	1310
		NC			18	25	31	36	40	43	46	49
		4-Way, 45° Fixed	2-4-6	4-5-6	7-10-16	9-13-21	10-15-21	12-18-26	15-22-35	16-24-39	18-27-43	20-30-48
		2-Way, 45° Fixed	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
		1-Way, Straight	3-5-8	6-8-11	10-13-19	12-17-25	15-22-36	18-27-43	21-31-50	23-35-56	26-39-63	29-44-70
1.53	30x8 24x10 20x12 18x14 16x16	CFM	150	296	446	592	742	892	1038	1183	1339	1484
		NC			18	26	32	37	41	44	47	50
		4-Way, 45° Fixed	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
		2-Way, 45° Fixed	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, Straight	3-5-8	7-9-12	10-13-19	12-18-26	15-23-37	18-27-44	21-32-51	24-26-58	27-41-65	30-46-73
1.82	36x8 30x10 24x12 20x14 18x16	CFM	177	354	529	708	883	1057	1232	1416	1591	1765
		NC			19	27	33	37	41	45	48	52
		4-Way, 45° Fixed	2-4-6	5-6-7	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-29-47	22-33-53
		2-Way, 45° Fixed	3-4-7	6-8-10	8-12-20	11-16-23	14-21-33	16-24-29	19-28-45	21-31-50	24-36-57	26-39-63
		1-Way, Straight	3-5-8	7-9-12	10-14-20	13-20-32	16-24-39	19-29-46	22-34-54	25-37-60	29-42-68	32-48-76
2.1	24x14 30x16 18x18	CFM	204	407	611	815	1019	1222	1426	1630	1833	2037
		NC	0	0	20	27	33	38	42	45	48	52
		4-Way, 45° Fixed	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	23-34-55
		2-Way, 45° Fixed	3-4-7	6-8-10	9-13-21	12-17-24	14-21-34	17-25-40	19-29-46	22-32-52	25-37-59	28-41-66
		1-Way, Straight	4-6-9	7-10-13	10-15-21	14-21-33	17-25-40	20-30-48	23-34-55	26-39-62	29-44-70	33-50-80
2.35	36x10 30x12 24x16 20x18	CFM	228	456	684	912	1145	1368	1591	1824	2056	2280
		NC			20	28	34	38	42	46	49	53
		4-Way, 45° Fixed	2-4-6	5-6-8	8-11-18	10-14-20	12-17-25	15-22-35	17-25-40	19-28-45	21-31-50	24-36-57
		2-Way, 45° Fixed	3-5-8	6-8-11	9-14-22	12-17-24	15-22-35	18-26-42	20-30-48	22-34-54	25-38-61	28-42-68
		1-Way, Straight	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
2.68	36x12 30x14 24x18 20x20	CFM	262	519	781	1038	1300	1562	1824	2076	2338	2600
		NC			21	28	34	39	43	46	49	53
		4-Way, 45° Fixed	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
		2-Way, 45° Fixed	3-5-8	6-8-11	9-14-22	12-17-25	15-22-36	20-30-48	20-31-49	23-35-56	26-39-62	29-44-70
		1-Way, Straight	4-6-9	8-10-14	11-16-23	15-22-35	18-27-43	21-32-51	25-37-59	28-41-66	31-47-75	35-53-85
3.15	36x16 30x18 24x24	CFM	306	611	917	1222	1533	1833	2134	2444	2755	3056
		NC		10	21	29	35	40	44	47	50	54
		4-Way, 45° Fixed	3-4-7	5-7-9	8-12-19	11-15-22	13-19-31	15-23-37	18-27-43	20-31-49	23-34-55	26-39-62
		2-Way, 45° Fixed	3-5-8	7-9-12	10-14-20	12-18-26	16-24-38	19-28-45	21-32-51	24-36-58	27-41-65	30-46-73
		1-Way, Straight	4-5-6	8-11-15	12-17-24	15-22-36	19-28-45	22-3-53	26-39-62	29-43-69	33-49-79	37-56-89
3.65	36x18 30x20	CFM	354	708	1067	1416	1765	2124	2483	2832	3182	3541
		NC		11	22	30	36	40	44	48	52	55
		4-Way, 45° Fixed	3-4-7	5-7-9	8-12-19	11-15-22	13-19-31	15-23-37	18-27-43	21-31-50	24-36-57	27-40-64
		2-Way, 45° Fixed	3-5-8	7-9-12	10-14-20	12-18-26	16-24-38	19-28-45	21-32-51	25-37-60	28-42-68	32-48-76
		1-Way, Straight	4-5-6	8-11-15	12-17-24	15-22-36	19-28-45	22-33-53	26-39-62	30-45-72	34-51-83	38-57-92

CFM: Cubic Feet per Minute

\*All pressures are in inches of water.

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FPM: Feet per Minute

\* Blank areas denote NC values less than 10 and CFM values less than 50.

TP: Total Pressure, inches w.g.

\*Throw values are measured in feet for terminal velocities of 150/100/50 FPM.

T: Throw in feet

\*Throw values are based on fixed louvers set at 45 degrees.

NC: Noise Criteria

\* Throw may be increased or decreased by as much as 20% by changing angle of louver.