AIRGUIDE - VH - SUPPLY GRILLE PERFORMANCE DATA

AIRGUIDE
LIFETIME AIR DISTRIBUTION ADVANTAGE

Performance Notes for Supply Grilles and Registers

Throw, Spread and Drop

The isovel diagrams shown below, illustrate in plan view, the relationship of horizontal spread to throw for three standard vertical blade deflections and represent a typical high side wall supply outlet. The isovels (throw values) are for the cataloged terminal velocities of 150, 100 and 50 fpm.

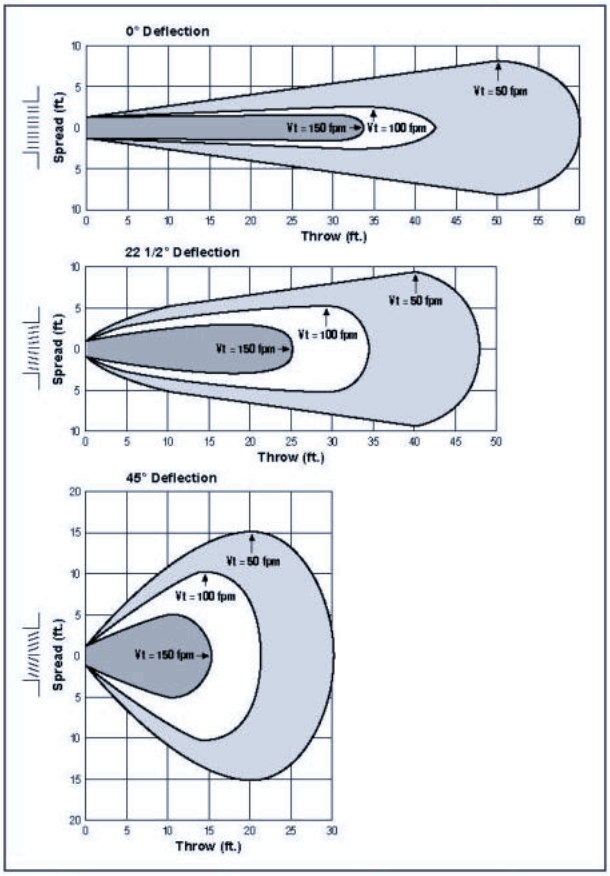
Cataloged data, in accordance with the test code, is with the grille mounted 9" (229) below the ceiling and benefiting from the ceiling coanda effect under isothermal conditions. Throw values without ceiling effect (greater than 24" (610) from a surface parallel to the airflow) may be approximated by multiplying the cataloged throw by x 0.7.

In order to offset potential draft problems caused by premature drop, it is recommended to set the blades with an upward deflection setting of 15 – 20° in free space conditions. The angle of spread and temperature differential between the supply air and room air (ΔT) also effects the drop of the airstream.

Under constant conditions of temperature, volume and core velocity, the wider the spread, the smaller the drop. Typical cold supply air (20°F ΔT) reduces horizontal throw by approximately 30%. Warm air will increase throw by approximately 30% and reduce drop.

For a full explanation of the effects of spread, throw, temperature and drop, refer to the engineering guide at the back of the catalog.

Spread Characteristics With Three Deflection Settings



NC Corrections for Blade Deflection (add)

Model Type	Damper	Blade Deflection		
		0°	22 1/2°	45°
Double Deflection	With	0	+ 2	+ 7
	Without	– 4	– 2	+ 3
Single Deflection	With	– 4	– 1	+ 4
	Without	– 8	– 6	+ 1

Note: Damper corrections are for wide open damper.

TP Correction Factors for Grilles Without Damper (multiply)

Blade deflection	0°	22 1/2°	45°
Double Defl. Factor	x .80	x .83	x .89
Single Defl. Factor	x .73	x .76	x .85

NC Corrections for Throttling Damper (add)

Additional Pressure Drop (in. w.g.)	.05"	.15"	.25"
Approx. Damper Opening	75%	67%	50%
NC add	+ 6	+ 11	+ 18

#2 Chootoo Road, South Aranguez, San Juan, Trinidad

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Performance Data

Supply Grilles and Registers

MODELS: V, VOB, H, HOB, VME, VMEOB, HME, HMEOB, VH, VHOB, VHME, VHMEOB, HV, HVOB, HVME, HVMEOB, VML, VMLME, HML, HMLME

Listed Duct Size (inches)	Alternate Size (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity VP		300 .006	400 .010	500 .016	600 .022	700 .031	800 .040	1000 .062	1200 .090	1400 .122
				TP	0° 22 1/2° 45°	.015 .017 .026	.026 .030 .046	.041 .047 .072	.059 .068 .103	.081 .093 .142	.106 .122 .186	.165 .190 .289	.238 .274 .417	.324 .373 .567
6 x 6	8 x 4 10 x 4	0.20		CFM		60	80	100	120	140	160	200	240	280
				NC		—	—	—	14	19	23	29	35	40
			.14 .12 .10	T	0° 22 1/2° 45°	5-7-13 4-6-10 3-4-7	7-9-16 6-7-13 4-5-8	8-12-18 6-10-14 4-6-9	10-14-20 8-11-16 5-7-10	11-15-21 9-12-17 6-8-11	12-16-23 10-13-18 6-8-12	15-18-25 12-14-20 8-9-13	16-20-27 13-16-22 8-10-14	17-21-30 14-17-24 9-11-15
8 x 6	10 x 5 12 x 4	0.27		CFM		81	108	135	162	189	216	270	324	378
				NC		—	—	10	15	20	24	30	36	41
			.18 .16 .14	T	0° 22 1/2° 45°	5-8-15 4-6-12 3-4-8	8-12-18 6-10-14 4-6-9	10-14-20 8-11-16 5-7-10	11-16-23 9-13-18 6-8-12	13-18-25 10-14-20 7-9-13	15-19-27 12-15-22 8-10-14	17-21-30 14-17-24 9-11-15	18-23-32 14-18-26 9-12-16	19-24-35 15-19-28 10-12-18
10 x 6	12 x 5 16 x 4	0.35		CFM		105	140	175	210	245	280	350	420	490
				NC		—	—	11	16	21	25	31	37	42
			.24 .21 .18	T	0° 22 1/2° 45°	6-9-18 5-7-14 3-5-9	9-13-21 7-10-17 5-7-11	10-16-24 8-13-19 5-8-12	12-19-26 10-15-21 6-10-13	15-20-28 12-16-22 8-10-14	17-21-30 14-17-24 9-11-15	20-23-33 16-18-26 10-12-17	21-25-36 17-20-29 11-13-18	22-27-39 18-22-31 11-14-20
8 x 8	14 x 5	0.38		CFM		114	152	190	228	266	304	380	456	532
				NC		—	—	12	17	22	26	32	38	43
			.26 .22 .20	T	0° 22 1/2° 45°	6-9-19 5-7-15 3-5-10	9-14-22 7-11-18 5-7-11	11-16-25 9-13-20 6-8-13	13-19-27 10-15-22 7-10-14	16-21-29 13-17-23 8-11-15	18-22-32 14-18-26 9-11-16	19-24-34 15-19-27 10-12-17	21-26-37 17-21-30 11-13-19	23-28-40 18-22-32 12-14-20
12 x 6	18 x 4	0.42		CFM		126	168	210	252	294	336	420	504	588
				NC		—	—	12	17	22	26	32	38	43
			.29 .25 .22	T	0° 22 1/2° 45°	6-9-19 5-7-15 3-5-10	9-14-22 7-11-18 5-7-11	11-16-25 9-13-20 6-8-13	13-19-27 10-15-22 7-10-14	16-21-30 13-17-24 8-11-15	18-22-32 14-18-26 9-11-16	19-24-34 15-19-27 10-12-17	21-26-38 17-22-30 11-14-19	23-29-41 18-23-33 12-15-21
14 x 6	10 x 8	0.50		CFM		150	200	250	300	350	400	500	600	700
				NC		—	—	13	18	23	27	33	39	44
			.34 .30 .26	T	0° 22 1/2° 45°	6-11-20 5-9-16 3-6-10	10-15-23 8-12-18 5-8-12	12-18-25 10-14-20 6-9-13	15-20-28 12-16-22 8-10-14	16-22-31 13-18-25 8-11-16	19-23-33 15-18-26 10-12-17	21-25-36 17-20-29 11-13-18	23-28-40 18-22-32 12-14-20	25-31-43 20-25-34 13-16-22
12 x 8	16 x 6 24 x 4	0.58		CFM		174	232	290	348	406	464	580	696	812
				NC		—	—	14	19	24	28	34	40	45
			.39 .34 .30	T	0° 22 1/2° 45°	7-11-21 6-9-17 4-6-11	10-15-24 8-12-19 5-8-12	12-19-27 10-15-22 6-10-14	15-21-30 12-17-24 8-11-15	17-23-32 14-18-26 9-12-16	20-24-34 16-19-27 10-12-17	22-27-38 18-22-30 11-14-19	24-30-42 19-24-34 12-15-21	26-32-45 21-26-36 13-16-23
10 x 10	14 x 7 26 x 4	0.61		CFM		183	244	305	366	427	488	610	732	854
				NC		—	—	14	19	24	28	34	40	45
			.41 .36 .31	T	0° 22 1/2° 45°	7-11-21 6-9-17 4-6-11	10-16-24 8-13-19 5-8-12	13-19-28 10-15-22 7-10-14	16-21-30 13-17-24 8-11-15	17-23-32 14-18-26 9-12-16	20-24-35 16-19-28 10-12-18	23-28-39 18-22-31 12-14-20	24-30-43 19-24-34 12-15-22	27-32-46 22-26-37 14-16-23
18 x 6	14 x 8 28 x 4 30 x 4	0.65		CFM		195	260	325	390	455	520	650	780	910
				NC		—	—	15	20	25	29	35	41	46
			.44 .38 .33	T	0° 22 1/2° 45°	7-12-22 6-10-18 4-6-11	11-16-25 9-13-20 6-8-13	13-20-29 10-16-23 7-10-15	16-22-32 13-18-26 8-11-16	18-24-34 14-19-27 9-12-17	21-25-36 17-20-29 11-13-18	24-29-40 19-23-32 12-15-20	25-31-45 20-26-36 13-16-23	28-34-48 22-27-38 14-17-24
12 x 10	20 x 6 24 x 5	0.74		CFM		222	296	370	444	518	592	740	888	1036
				NC		—	—	15	20	25	29	35	41	46
			.50 .44 .38	T	0° 22 1/2° 45°	8-13-24 6-10-19 4-7-12	11-17-27 9-14-22 6-9-14	14-21-31 11-17-25 7-11-16	17-24-33 14-19-26 9-12-17	20-26-36 16-21-29 10-13-18	22-27-39 18-22-31 11-14-20	25-31-43 20-25-34 13-16-22	27-33-48 22-26-38 14-17-24	30-36-51 24-29-41 15-18-26
22 x 6	16 x 8 28 x 5 36 x 4	0.80		CFM		240	320	400	480	560	640	800	960	1120
				NC		—	—	16	21	26	30	36	42	47
			.54 .47 .41	T	0° 22 1/2° 45°	8-13-25 6-10-20 4-7-13	11-18-28 9-14-22 6-9-14	15-22-32 12-18-26 8-11-16	18-25-35 14-20-28 9-13-18	20-27-38 16-22-30 10-14-19	23-28-41 18-22-33 12-14-21	26-32-45 21-26-36 13-16-23	28-35-50 22-28-40 14-18-25	31-38-53 25-30-42 16-19-27
12 x 12	14 x 10 18 x 8 24 x 6 38 x 4	0.90		CFM		270	360	450	540	630	720	900	1080	1260
				NC		—	—	16	21	26	30	36	42	47
			.61 .53 .46	T	0° 22 1/2° 45°	9-14-26 7-11-21 5-7-13	12-18-29 10-14-23 6-9-15	15-23-33 12-18-26 8-12-17	18-26-36 14-21-29 9-13-18	21-27-39 17-22-31 11-14-20	24-29-42 19-23-34 12-15-21	27-33-47 22-26-38 14-17-24	29-36-51 23-29-41 15-18-26	32-39-56 26-31-45 16-20-28
18 x 10	30 x 6	1.13		CFM		339	452	565	678	791	904	1130	1356	1582
				NC		—	10	17	22	27	31	37	43	48
			.77 .67 .58	T	0° 22 1/2° 45°	9-15-29 7-12-23 5-8-15	14-20-33 11-16-26 7-10-17	17-25-36 14-20-29 9-13-18	20-29-40 16-23-32 10-15-20	24-30-43 19-24-34 12-15-22	27-33-46 22-26-37 14-17-23	30-36-51 24-29-41 15-18-26	33-40-57 26-32-46 17-20-29	35-43-61 28-34-49 18-22-31

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Listed Duct Size (inches)	Alternate Size (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity VP / TP	300 .006 .015 .017 .026	400 .010 .026 .030 .046	500 .016 .041 .047 .072	600 .022 .059 .068 .103	700 .031 .081 .093 .142	800 .040 .106 .122 .186	1000 .062 .165 .190 .289	1200 .090 .238 .274 .417	1400 .122 .324 .373 .567
14 x 14	16 x 12 20 x 10 24 x 8 34 x 6	1.24		CFM NC	372 —	496 10	620 17	744 22	868 27	992 31	1240 37	1488 43	1736 48
			.84 .73 .64	T 0° T 22-1/2° T 45°	11-18-33 9-14-26 6-9-17	16-25-39 13-20-31 8-13-20	20-29-42 16-23-34 10-15-21	24-33-47 19-26-38 12-17-24	27-36-51 22-29-41 14-18-26	31-39-54 25-31-43 16-20-27	35-42-60 28-34-48 18-21-30	39-47-66 31-38-53 20-24-33	41-51-71 33-41-57 21-26-36
18 x 12	16 x 14 22 x 10 28 x 8 38 x 6	1.37		CFM NC	411 —	548 11	685 18	822 23	959 28	1096 32	1370 38	1644 44	1918 49
			.93 .81 .71	T 0° T 22 1/2° T 45°	11-18-33 9-14-26 6-9-17	16-25-39 13-20-31 8-13-20	20-30-43 16-24-34 10-15-22	24-33-47 19-26-38 12-17-24	28-36-51 22-29-41 14-18-26	32-39-54 26-31-43 16-20-27	35-43-61 28-34-49 18-22-31	39-47-67 31-38-54 20-24-34	41-51-72 33-41-58 21-26-36
24 x 10	20 x 12 30 x 8	1.52		CFM NC	456 —	608 11	760 18	912 23	1064 28	1216 32	1520 38	1824 44	2128 49
			1.03 .90 .78	T 0° T 22 1/2° T 45°	12-19-35 10-15-28 6-10-18	16-25-41 13-20-33 8-13-21	21-32-45 17-26-36 11-16-23	25-35-50 20-28-40 13-18-25	29-38-53 23-30-42 15-19-27	34-41-57 27-33-46 17-21-29	37-45-64 30-36-51 19-23-32	41-50-70 33-40-56 21-25-35	43-53-76 34-42-61 22-27-38
16 x 16	18 x 14 22 x 12 30 x 8	1.64		CFM NC	492 —	656 11	820 18	984 23	1148 28	1312 32	1640 38	1968 44	2296 49
			1.12 .97 .84	T 0° T 22 1/2° T 45°	12-20-37 10-16-30 6-10-19	17-26-42 14-21-34 9-13-21	22-32-47 18-26-38 11-16-24	26-37-51 21-30-41 13-19-26	31-40-56 25-32-45 16-20-28	35-42-59 28-34-47 18-21-30	39-47-67 31-38-54 20-24-34	42-51-73 34-41-58 21-26-37	46-56-79 37-45-63 23-28-40
24 x 12	18 x 16 20 x 14 30 x 10 36 x 8	1.85		CFM NC	555 —	740 12	925 19	1110 24	1295 29	1480 33	1850 39	2220 45	2590 50
			1.26 1.09 .95	T 0° T 22 1/2° T 45°	12-20-38 10-16-30 6-10-19	18-27-44 14-22-35 9-14-22	22-33-48 18-26-38 11-17-24	27-38-54 22-30-43 14-19-27	32-40-58 26-32-46 16-20-29	36-44-62 29-35-50 18-22-31	40-48-69 32-38-55 20-24-35	44-54-76 35-43-61 22-27-38	48-58-82 38-46-66 24-29-41
18 x 18	20 x 16 24 x 14 28 x 12 32 x 10	2.10		CFM NC	630 —	840 12	1050 19	1260 24	1470 29	1680 33	2100 39	2520 45	2940 50
			1.43 1.24 1.08	T 0° T 22 1/2° T 45°	13-21-40 10-17-32 7-11-20	19-29-47 15-23-38 10-15-24	24-36-52 19-29-42 12-18-26	29-40-57 23-32-46 15-20-29	33-43-62 26-34-50 17-22-31	38-47-66 30-38-53 19-24-33	42-52-74 34-42-59 21-26-37	47-57-81 38-46-65 24-29-41	50-62-87 40-50-70 25-31-44
30 x 12	20 X 18 22 x 16 26 x 14 36 X 10	2.32		CFM NC	696 —	928 13	1160 20	1392 25	1624 30	1856 34	2320 40	2784 46	3248 51
			1.58 1.37 1.19	T 0° T 22 1/2° T 45°	14-23-43 11-18-34 7-12-22	21-31-50 17-25-40 11-16-25	26-39-56 21-31-45 13-20-28	31-43-61 25-34-49 16-22-31	36-47-67 29-38-54 18-24-34	41-50-71 33-40-57 21-25-36	46-56-79 32-45-63 23-28-40	50-61-86 40-49-69 25-31-43	54-67-94 43-54-75 27-34-47
24 x 16	32 x 12	2.50		CFM NC	750 —	1000 13	1250 20	1500 25	1750 30	2000 34	2500 40	3000 46	3500 51
			1.70 1.48 1.29	T 0° T 22 1/2° T 45°	14-24-45 11-19-36 7-12-23	22-32-52 18-26-42 11-16-26	27-40-58 22-32-46 14-20-29	32-45-64 26-36-51 16-23-32	37-49-68 30-39-54 19-25-34	43-52-74 34-42-59 22-26-37	48-58-82 38-46-66 24-29-41	52-64-90 42-51-72 26-32-45	56-68-97 45-54-78 28-34-49
20 x 20	22 x 18	2.61		CFM NC	783 —	1044 13	1305 20	1566 25	1827 30	2088 34	2610 40	3132 46	3654 51
			1.77 1.54 1.34	T 0° T 22 1/2° T 45°	15-24-46 12-19-37 8-12-23	22-32-53 18-26-42 11-16-27	27-41-59 22-33-47 14-21-30	32-46-65 26-37-52 16-23-33	38-50-70 30-40-56 19-25-35	44-53-75 35-42-60 22-27-38	49-59-84 39-47-67 25-30-42	53-65-92 42-52-74 27-33-46	58-70-99 46-56-79 29-35-50
36 x 12	22 x 20 24 x 18 26 x 16 30 x 14	2.79		CFM NC	837 —	1116 13	1395 20	1674 25	1953 30	2232 34	2790 40	3348 46	3906 51
			1.90 1.65 1.44	T 0° T 22 1/2° T 45°	15-25-48 12-20-38 8-13-24	23-34-55 18-27-44 12-17-28	28-42-61 22-34-49 14-21-31	34-48-68 27-38-54 17-24-34	4-51-73 32-41-58 20-26-37	45-55-77 36-44-62 23-28-39	50-61-86 40-49-69 25-31-43	55-68-95 44-54-76 28-34-48	59-73-103 47-58-82 30-37-52
22 x 22	24 x 20 26 x 18 30 x 16 40 x 12	3.17		CFM NC	951 —	1268 14	1585 21	1902 26	2219 31	2536 35	3170 41	3804 47	4438 52
			2.16 1.87 1.63	T 0° T 22 1/2° T 45°	17-27-50 14-22-40 9-14-25	24-36-58 19-29-46 12-18-29	29-45-65 23-36-52 15-23-33	36-50-71 29-40-57 18-25-36	42-54-77 34-43-62 21-27-39	47-58-82 38-46-66 24-29-41	53-65-92 42-52-74 27-33-46	58-71-101 46-57-81 29-36-51	62-77-109 50-62-87 31-39-55
42 x 12	36 x 14	3.27		CFM NC	981 —	1308 14	1635 21	1962 26	2289 31	2616 35	3270 41	3924 47	4578 52
			2.22 1.93 1.68	T 0° T 22 1/2° T 45°	17-27-51 14-22-41 9-14-26	24-36-59 19-29-47 12-18-30	30-45-66 24-36-53 15-23-33	36-51-72 29-41-58 18-26-36	42-55-77 34-44-62 21-28-39	48-59-83 38-47-66 24-30-42	53-66-93 42-53-74 27-33-47	59-72-101 47-58-81 3-36-51	63-77-109 50-62-87 32-39-55
30 x 18	24 x 22 34 x 16 40 x 14	3.54		CFM NC	1062 —	1416 14	1770 21	2124 26	2478 31	2832 35	3540 41	4248 47	4956 52
			2.41 2.09 1.82	T 0° T 22 1/2° T 45°	18-28-53 14-22-42 9-14-27	25-37-61 20-30-49 13-19-31	31-47-69 25-38-55 16-24-35	37-53-75 30-42-60 19-27-38	44-57-81 35-46-65 22-29-41	50-61-86 40-49-69 25-31-43	56-69-97 45-55-78 28-35-49	61-75-106 49-60-85 31-38-53	66-81-115 53-65-92 33-41-58

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24 x 24	26 x 22 28 x 20 32 x 18 36 x 16	3.79		CFM		1137	1516	1895	2274	2653	3032	3790	4548	5306
				NC		—	14	21	26	31	35	41	47	52
			2.58	T	0°	18-29-55	26-39-62	33-48-70	39-55-77	45-59-83	51-62-89	57-70-99	62-77-108	68-83-117
			2.24		22-1/2°	14-23-44	21-31-50	26-38-56	31-44-62	36-47-66	41-50-71	46-56-79	50-62-86	54-66-94
			1.95		45°	9-15-28	13-20-31	17-24-35	20-28-39	23-30-42	26-31-45	29-35-50	31-39-54	34-42-59
36 x 18	32 x 20 40 x 16 46 x 14	4.29		CFM		1287	1716	2145	2574	3003	3432	4290	5148	6006
				NC		—	15	22	27	32	36	42	48	53
			2.92	T	0°	19-31-58	28-42-68	35-52-75	42-58-83	48-63-89	55-68-95	61-75-106	68-83-117	73-89-125
			2.53		22 1/2°	15-25-46	22-34-54	28-42-60	34-46-66	38-50-71	44-54-76	49-60-85	54-66-94	58-71-100
			2.21		45°	10-16-29	14-21-34	18-26-38	21-29-42	24-32-45	28-34-48	31-38-53	34-42-59	37-45-63
26 x 26	28 x 24 48 x 14	4.47		CFM		1341	1788	2235	2682	3129	3576	4470	5364	6258
				NC		—	15	22	27	32	36	42	48	53
			3.04	T	0°	19-32-59	28-43-69	35-53-77	43-59-85	49-65-91	56-69-98	63-77-109	69-85-120	75-91-129
			2.64		22 1/2°	15-26-47	22-34-55	28-42-62	34-47-68	39-52-73	45-55-78	50-62-87	55-68-96	60-73-103
			2.30		45°	10-16-30	14-22-35	18-27-32	22-30-43	25-33-46	28-35-49	32-39-55	35-43-60	38-46-65
30 x 24	32 x 22 36 x 20 40 x 18	4.77		CFM		1431	1908	2385	2862	3339	3816	4770	5724	6678
				NC		—	15	22	27	32	36	42	48	53
			3.24	T	0°	20-33-61	29-44-71	36-54-79	44-61-87	51-67-94	58-71-101	65-79-112	71-87-123	77-94-133
			2.81		22 1/2°	16-26-49	23-35-57	29-43-63	35-49-70	41-54-75	46-57-81	52-63-90	57-70-98	62-75-106
			2.46		45°	10-17-31	15-22-36	18-27-40	22-31-44	26-34-47	29-36-51	33-40-56	36-44-62	39-47-67
42 x 18	28 x 26	4.99		CFM		1497	1996	2495	2994	3493	3992	4990	5988	6986
				NC		—	16	23	28	33	37	43	49	54
			3.39	T	0°	20-33-62	30-44-72	37-55-80	44-62-88	52-67-95	59-72-102	66-80-114	72-88-125	77-95-135
			2.94		22 1/2°	16-26-50	24-35-58	30-44-64	35-50-70	42-54-76	47-58-82	53-64-91	58-70-100	62-76-108
			2.57		45°	10-17-31	15-22-36	19-28-40	22-31-44	26-34-48	30-36-51	33-40-57	36-44-63	39-48-68
28 x 28	30 x 26 36 x 22 40 x 20	5.20		CFM		1560	2080	2600	3120	3640	4160	5200	6240	7280
				NC		—	16	23	28	33	37	43	49	54
			3.54	T	0°	21-34-63	30-45-74	38-56-82	45-63-90	53-69-97	60-74-104	67-82-116	74-90-128	79-97-137
			3.07		22 1/2°	17-27-50	24-36-59	30-45-66	36-50-72	42-55-78	48-59-83	54-66-93	59-72-102	63-78-110
			2.68		45°	11-17-32	15-23-37	19-28-41	23-32-45	27-35-49	30-37-52	34-41-58	37-45-64	40-49-69
42 x 20	30 x 28	5.57		CFM		1671	2228	2785	3342	3899	4456	5570	6684	7798
				NC		—	16	23	28	33	37	43	49	54
			3.79	T	0°	22-35-66	31-47-76	39-58-84	47-66-93	55-71-100	62-76-107	70-84-120	76-93-131	82-100-142
			3.29		22 1/2°	18-28-53	25-38-61	31-46-67	38-53-74	44-57-80	50-61-86	56-67-96	61-74-105	66-80-114
			2.87		45°	11-18-33	16-24-38	20-29-42	24-33-47	28-36-50	31-38-54	35-42-60	38-47-66	41-50-71
36 x 24	40 x 22 44 x 20	5.74		CFM		1722	2296	2870	3444	4018	4592	5740	6888	8036
				NC		—	16	23	28	33	37	43	49	54
			3.90	T	0°	23-36-68	32-49-78	41-60-88	49-68-96	57-74-104	64-78-112	72-88-124	78-96-137	85-104-148
			3.39		22 1/2°	18-29-54	26-39-62	33-48-70	39-54-77	46-59-83	51-62-90	58-70-99	62-77-110	68-83-118
			2.96		45°	12-18-34	16-25-39	21-30-44	25-34-48	29-37-52	32-39-56	36-44-62	39-48-69	43-52-74
30 x 30	34 x 26 38 x 24 48 x 20	5.99		CFM		1797	2396	2995	3594	4193	4792	5990	7188	8386
				NC		—	16	23	28	33	37	43	49	54
			4.07	T	0°	23-36-69	33-49-80	41-61-89	49-69-98	57-75-106	65-80-113	73-89-126	80-98-138	86-106-150
			3.53		22 1/2°	18-29-55	26-39-64	33-49-71	39-55-78	46-60-85	52-64-90	58-71-101	64-78-110	69-85-120
			3.08		45°	12-18-35	17-25-40	21-31-45	25-35-49	29-38-53	33-40-57	37-45-63	40-49-69	43-53-75
42 x 24	36 x 28 42 x 24 46 x 22	6.72		CFM		2016	2688	3360	4032	4704	5376	6720	8064	9408
				NC		—	17	24	29	34	38	44	50	55
			4.57	T	0°	24-39-72	34-51-84	43-64-93	51-72-102	60-78-111	68-84-118	77-93-132	84-102-144	90-111-157
			3.96		22 1/2°	19-31-58	27-41-67	34-51-74	41-58-82	48-62-89	54-67-94	62-74-106	67-82-115	72-89-126
			3.46		45°	12-20-36	17-26-42	22-32-47	26-36-51	30-39-56	34-42-59	39-47-67	42-51-72	45-56-79
32 x 32	40 x 26	6.84		CFM		2052	2736	3420	4104	4788	5472	6840	8208	9576
				NC		—	17	24	29	34	38	44	50	55
			4.65	T	0°	24-39-73	34-52-84	43-65-94	52-73-103	61-79-112	69-84-119	77-94-133	84-103-146	91-112-158
			4.04		22 1/2°	19-31-58	27-42-67	34-52-75	42-58-82	49-63-90	55-67-95	62-75-106	67-82-117	73-90-126
			3.52		45°	12-20-37	17-26-42	22-33-47	26-37-52	31-40-56	35-42-60	39-47-67	42-52-73	46-56-79
36 x 30	38 x 28	7.22		CFM		2166	2888	3610	4332	5054	5776	7220	8664	10108
				NC		—	17	24	29	34	38	44	50	55
			4.91	T	0°	25-40-76	36-54-87	45-68-98	54-76-108	63-82-116	71-87-124	80-98-139	87-108-151	94-116-164
			4.26		22 1/2°	20-32-61	29-43-70	36-54-78	43-61-86	50-66-93	57-70-99	64-78-111	70-86-121	75-93-131
			3.72		45°	13-20-38	18-27-44	23-34-49	27-38-54	32-41-58	36-44-62	40-49-70	44-54-76	47-58-82
48 x 24	34 x 34 36 x 32 38 x 30 42 x 28	7.69		CFM		2307	3076	3845	4614	5383	6152	7690	9228	10766
				NC		—	18	25	30	35	39	45	51	56
			5.23	T	0°	26-41-77	37-55-90	46-69-100	55-77-109	64-84-118	73-90-127	82-100-142	90-109-155	97-118-167
			4.54		22 1/2°	21-33-62	30-44-72	37-55-80	44-62-87	51-67-94	58-72-102	66-80-114	72-87-124	78-94-134
			3.96		45°	13-22-39	19-28-45	23-45-50	28-39-55	32-42-59	37-45-64	41-50-71	45-55-78	49-59-84

AIRGUIDE - VH - SUPPLY GRILLE PERFORMANCE DATA

AIRGUIDE
LIFETIME AIR DISTRIBUTION ADVANTAGE

Performance Data

Supply Grilles and Registers

MODELS: V, VOB, H, HOB, VME, VMEOB, HME, HMEOB, VH, VHOB, VHME, VHMEOB, HV, HVOB, HVME, HVMEOB, VML, VMLME, HML, HMLME

Listed Duct Size (inches)	Alternate Size (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity VP		300 .006	400 .010	500 .016	600 .022	700 .031	800 .040	1000 .062	1200 .090	1400 .122
				TP	0° 22 1/2° 45°	.015 .017 .026	.026 .030 .046	.041 .047 .072	.059 .068 .103	.081 .093 .142	.106 .122 .186	.165 .190 .289	.238 .274 .417	.324 .373 .567
36 x 34	38 x 32 40 x 30 48 x 26	8.20		CFM NC		2460 —	3280 18	4100 25	4920 30	5740 35	6560 39	8200 45	9840 51	11480 56
			5.58 4.84 4.22	T	0° 22-1/2° 45°	26-42-79 21-34-63 13-21-40	37-57-91 30-46-73 19-29-46	47-70-102 38-56-82 24-35-51	57-79-111 46-63-89 29-40-56	65-85-121 52-68-97 33-43-61	75-91-129 60-73-103 38-46-65	84-102-144 67-82-115 42-51-72	91-111-158 73-89-126 46-56-79	98-121-171 78-97-137 49-61-86
36 x 36	38 x 34 42 x 30 46 x 28	8.69		CFM NC		2607 —	3476 18	4345 25	5214 30	6083 35	6952 39	8690 45	10428 51	12166 56
			5.91 5.13 4.48	T	0° 22 1/2° 45°	28-45-84 22-36-67 14-23-42	39-60-96 31-48-77 20-30-48	49-74-108 39-59-86 25-37-54	60-84-117 48-67-94 30-42-59	69-90-127 55-72-102 35-45-64	78-96-136 62-77-109 39-48-68	88-108-152 70-86-122 44-54-76	96-117-166 77-94-133 48-59-83	104-127-180 83-102-144 52-64-90
38 x 38	42 x 34	9.70		CFM NC		2910 10	3880 19	4850 26	5820 31	6790 36	7760 40	9700 46	11640 52	13580 57
			6.60 5.72 5.00	T	0° 22 1/2° 45°	28-47-88 22-38-70 14-24-44	42-62-101 34-50-81 21-31-51	53-78-114 42-62-91 27-39-57	62-88-125 50-70-100 31-44-63	73-95-134 58-76-107 37-48-67	83-101-143 66-81-114 42-51-72	93-114-161 74-91-129 47-57-81	101-125-176 81-100-141 51-63-88	109-134-190 87-107-152 55-67-95
42 x 36	44 x 34 48 x 30	10.16		CFM NC		3048 10	4064 19	5080 26	6096 31	7112 36	8128 40	10160 46	12192 52	14224 57
			6.91 5.99 5.23	T	0° 22-1/2° 45°	29-48-90 23-38-72 15-24-45	43-64-104 34-51-83 22-32-52	53-80-117 42-64-94 27-40-59	64-90-127 51-72-102 32-45-64	75-97-138 60-78-110 38-49-69	85-104-147 68-83-118 43-52-74	95-117-165 76-94-132 48-59-83	104-127-180 83-102-144 52-64-90	112-138-195 90-110-156 56-69-98
40 x 40	42 x 38 46 x 34 48 x 32	10.77		CFM NC		3231 10	4308 19	5385 26	6462 31	7539 36	8616 40	10770 46	12924 52	15078 57
			7.32 6.35 5.55	T	0° 22 1/2° 45°	31-50-94 25-40-75 16-25-47	44-67-108 35-54-86 22-34-54	56-84-121 45-67-97 28-42-61	67-94-132 54-75-106 34-47-66	77-102-143 62-82-114 39-51-72	88-108-153 70-86-122 44-54-77	99-121-171 79-97-137 50-61-86	108-132-187 86-106-150 54-66-94	117-143-203 94-114-162 59-72-102
42 x 42	44 x 40 46 x 38 48 x 36	11.89		CFM NC		3567 11	4756 20	5945 27	7134 32	8323 37	9512 41	11890 47	14268 53	16646 58
			8.09 7.02 6.12	T	0° 22 1/2° 45°	32-52-97 26-42-78 16-26-49	46-69-112 37-55-90 23-35-56	58-86-125 46-69-100 29-43-63	69-97-138 55-78-110 35-49-69	81-105-149 65-84-119 41-53-75	92-112-159 74-90-127 46-56-80	102-125-178 82-100-142 51-63-89	112-138-195 90-110-156 56-69-98	122-149-210 98-119-168 61-75-105
44 x 44	46 x 42	13.07		CFM NC		3921 11	5228 20	6535 27	7842 32	9149 37	10456 41	13070 47	15684 53	18298 58
			8.89 7.71 6.73	T	0° 22 1/2° 45°	34-55-104 27-44-83 17-28-52	49-74-120 39-59-96 25-37-60	61-92-133 49-74-106 31-46-67	74-104-146 59-83-117 37-52-73	86-112-158 69-90-126 43-56-79	97-120-168 78-96-134 49-60-84	109-133-189 87-106-151 55-67-95	120-146-207 96-117-166 60-73-104	129-158-223 103-126-178 65-79-112
46 x 46		14.30		CFM NC		4290 11	5720 20	7150 27	8580 32	10010 37	11440 41	14300 47	17160 53	20020 58
			9.72 8.44 7.36	T	0° 22 1/2° 45°	35-57-107 28-46-86 18-29-54	51-76-124 41-61-99 26-38-62	63-95-138 50-76-110 32-48-69	76-107-151 61-86-121 38-54-76	89-116-163 71-93-130 45-58-82	101-124-174 81-99-139 51-62-87	113-138-195 90-110-156 57-69-98	124-151-214 99-121-171 62-76-107	134-163-231 107-130-185 62-82-116
48 x 48		15.59		CFM NC		4677 12	6236 21	7795 28	9354 33	10913 38	12472 42	15590 48	18708 54	21826 59
			10.60 9.20 8.03	T	0° 22 1/2° 45°	37-60-113 30-48-90 19-30-57	53-80-131 42-64-105 27-40-66	67-100-146 54-80-117 34-50-73	80-113-159 64-90-127 40-57-80	94-122-173 75-98-138 47-61-87	106-131-185 85-105-148 53-66-93	119-146-206 95-117-165 60-73-103	131-159-226 105-127-181 62-80-113	140-173-244 112-138-195 70-87-122

CFM - cubic feet per minute
TP - total pressure - inches w.g.
VP - velocity pressure - inches w.g.
T - throw in feet
NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts @ 0° deflection.

Core velocity is in feet per minute.

Performance Notes:

1. Performance data is based on double deflection grille with opposed blade damper (register).
2. 0°, 22 1/2° and 45° represent vertical blade deflection angles and horizontal spread.
3. Throw values are given for terminal velocities of 150, 100 and 50 fpm under isothermal conditions.
4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.