HORIZONTAL PATTERN

Neck Size, ø	Nom Duct Area, ft2	Neck Velocity	400			500			600			800			1000			1200			1400			1600			1800			2000		
		Velocity Press	0.01			0.02			0.02			0.04			0.06			0.09			0.12			0.16			0.20			0.25		
6	0.196	CFM	80			100			120			160			200			240			270			310			350			390		
		Ps	0.01			0.02			0.02			0.04			0.07			0.10			0.13			0.17			0.21			0.26		
		NC	<20			<20			<20			<20			26			32			36			40			44			47		
		Throw	1	2	4	2	3	5	2	3	7	3	4	9	4	5	11	4	7	13	5	7	15	6	8	16	6	9	17	7	11	18
8	0.349	CFM	140			170			210			280			350			420			490			560			630			700		
		Ps	0.02			0.02			0.04			0.07			0.10			0.15			0.20			0.27			0.34			0.42		
		NC	<20			<20			<20			21			28			34			39			43			47			50		
		Throw	2	3	5	2	3	7	3	4	8	4	5	11	5	7	14	5	8	16	6	10	19	7	11	22	8	12	23	9	14	24
10	0.545	CFM	220			270			330			440			550			650			760			870			980			1090		
		Ps	0.01			0.01			0.02			0.03			0.04			0.06			0.09			0.11			0.14			0.18		
		NC	<20			<20			<20			<20			23			28			33			38			41			45		
		Throw	2	3	7	3	4	8	3	5	10	5	7	14	6	8	17	7	10	20	8	12	23	9	13	27	10	15	29	11	17	30
12	0.785	CFM	310			390			470			630			790			940			1100			1260			1410			1570		
		Ps	0.01			0.01			0.02			0.04			0.06			0.08			0.11			0.15			0.19			0.23		
		NC	<20			<20			<20			24			31			36			41			46			49			53		
		Throw	3	4	8	3	5	10	4	6	12	6	8	17	7	10	21	8	12	25	10	14	29	11	17	33	12	19	35	14	21	36
15	1.227	CFM	490			610			740			980			1230			1470			1720			1960			2210			2450		
		Ps	0.01			0.02			0.03			0.06			0.09			0.13			0.18			0.23			0.29			0.36		
		NC	<20			<20			<20			28			35			41			46			50			54			57		
		Throw	3	5	10	4	6	13	5	8	15	7	10	20	9	13	26	10	15	31	12	18	36	14	20	41	15	23	43	17	25	46
18	1.767	CFM	710			880			1060			1410			1770			2120			2470			2830			3180			3530		
		Ps	0.02			0.03			0.04			0.07			0.11			0.16			0.22			0.29			0.36			0.45		
		NC	<20			<20			<20			28			35			41			45			50			53			57		
		Throw	4	6	12	5	8	15	6	9	19	8	12	25	10	15	31	12	19	37	14	22	43	16	25	49	19	28	52	21	31	55
21	2.405	CFM	960			1200			1440			1920			2400			2890			3370			3850			4330			4810		
		Ps	0.01			0.01			0.01			0.02			0.04			0.05			0.07			0.10			0.12			0.15		
		NC	<20			<20			20			29			36			42			47			51			54			58		
		Throw	2	5	11	4	7	14	5	9	17	8	11	23	9	14	28	11	17	34	13	20	40	15	23	46	17	26	51	19	29	57
24	3.141	CFM	1260			1570			1880			2510			3140			3770			4400			5030			5650			6280		
		Ps	0.01			0.02			0.03			0.04			0.07			0.10			0.14			0.18			0.23			0.28		
		NC	<20			<20			21			30			37			43			48			52			56			59		
		Throw	5	8	16	7	10	20	8	12	24	11	16	32	13	20	40	16	24	49	19	28	57	22	32	65	24	36	69	27	40	73

Notes:
- Data provided with third cone fully lowered
- Neck velocity is fpm, feet per minute.

Test Standard
- ANSI / ASHRAE standard 70
- Isothermal conditions
- Non-uniform air flow into diffusers increase sound levels, operating pressures, and can distort the air distribution pattern into the space

Sound Levels
- NC is noise criteria curve that will not be exceeded at the operating point. This is determined by assuming a 10dB (ref: 10^{-12} watts) room attenuation that is subtracted from the power levels in each of the 2nd thru 7th octave bands

Throw
- The numbers shown are throw distances, in feet, measured along the jet trajectory axis relating to terminal velocities of 150,100,& 50 fpm and include a surface effect.
- Terminal velocity is the air speed, in feet per minute, measured in the supply air stream.
- For exposed duct installations, throws are 70% of the table values above.

Pressure
- P_s represents static pressure, inches of water
- P_t total pressure can be calculated by adding the Velocity pressure and Static pressure (P_s), inches of water
- All pressures are stated and calculated in inches of water.

VERTICAL PROJECTION

Neck Size, ø	Nom Duct Area, ft2	Neck Velocity	400	500	600	800	1000	1200	1400	1600	1800	2000
		Velocity Press	0.01	0.02	0.02	0.04	0.06	0.09	0.12	0.16	0.20	0.25
6	0.196	CFM	80	100	120	160	200	240	270	310	350	390
		Ps	0.02	0.04	0.05	0.10	0.15	0.22	0.28	0.37	0.47	0.58
		NC	<20	<20	<20	23	30	36	40	44	48	52
		Projection, ft	8 10 15	9 12 16	10 13 18	12 15 21	13 16 23	15 18 25	15 19 27	17 20 29	18 22 30	19 23 32
8	0.349	CFM	140	170	210	280	350	420	490	560	630	700
		Ps	0.04	0.05	0.08	0.15	0.23	0.33	0.45	0.59	0.74	0.92
		NC	<20	<20	<20	25	32	38	43	47	51	54
		Projection, ft	11 14 19	12 15 21	14 17 24	16 19 27	18 22 30	19 24 33	21 25 36	22 27 38	24 29 41	25 30 43
10	0.545	CFM	220	270	330	440	550	650	760	870	980	1090
		Ps	0.02	0.02	0.04	0.06	0.10	0.14	0.19	0.25	0.31	0.39
		NC	<20	<20	<20	20	27	32	37	42	45	49
		Projection, ft	14 17 24	15 19 27	17 21 30	20 24 34	22 27 38	24 29 41	26 32 45	28 34 48	29 36 51	31 38 54
12	0.785	CFM	310	390	470	630	790	940	1100	1260	1410	1570
		Ps	0.02	0.03	0.05	0.08	0.13	0.18	0.25	0.33	0.41	0.51
		NC	<20	<20	<20	28	35	41	46	50	54	57
		Projection, ft	17 20 29	19 23 32	20 25 35	24 29 41	26 32 46	29 35 50	31 38 54	33 41 58	35 43 61	37 46 64
15	1.227	CFM	490	610	740	980	1230	1470	1720	1960	2210	2450
		Ps	0.03	0.05	0.07	0.13	0.20	0.29	0.39	0.51	0.64	0.79
		NC	<20	<20	23	32	39	45	50	54	58	61
		Projection, ft	21 25 36	23 28 40	26 31 44	29 36 51	33 40 57	36 44 62	39 48 67	42 51 72	44 54 76	46 57 81
18	1.767	CFM	710	880	1060	1410	1770	2120	2470	2830	3180	3530
		Ps	0.04	0.06	0.09	0.16	0.25	0.36	0.48	0.63	0.80	0.99
		NC	<20	<20	23	32	39	45	50	54	58	61
		Projection, ft	25 31 43	28 34 48	31 37 53	35 43 61	40 48 68	43 53 75	47 57 81	50 61 87	53 65 92	56 68 97
21	2.405	CFM	960	1200	1440	1920	2400	2890	3370	3850	4330	4810
		Ps	0.01	0.02	0.03	0.05	0.08	0.12	0.16	0.21	0.27	0.33
		NC	<20	<20	24	33	40	46	51	55	59	62
		Projection, ft	29 36 50	33 40 56	36 44 62	41 50 71	46 56 80	50 62 87	55 67 94	58 71 101	62 76 107	65 80 113
24	3.141	CFM	1260	1570	1880	2510	3140	3770	4400	5030	5650	6280
		Ps	0.02	0.04	0.06	0.10	0.15	0.22	0.30	0.40	0.50	0.62
		NC	<20	<20	24	34	41	47	51	56	59	63
		Projection, ft	33 41 58	37 46 64	41 50 71	47 58 81	53 64 91	58 71 100	62 76 108	67 82 115	71 86 122	74 91 129

Notes:
- Data provided with third cone fully raised
- Neck velocity is fpm, feet per minute.

Test Standard
- ANSI / ASHRAE standard 70
- Isothermal conditions - Adjust projection distances for temperature differentials using Graph 4, page E-11
- Non-uniform air flow into diffusers increase sound levels, operating pressures, and can distort the air distribution pattern into the space

Sound Levels
- NC is noise criteria curve that will not be exceeded at the operating point. This is determined by assuming a 10dB (ref: 10^{-12} watts) room attenuation that is subtracted from the power levels in each of the 2nd thru 7th octave bands

Projection
- The numbers shown are vertical projection distances, in feet, measured along the jet trajectory axis relating to terminal velocities of 150,100,& 50 fpm for a free, unbounded jet.
- Terminal velocity is the air speed, in feet per minute, measured in the supply air stream.

Pressure
- P_s represents static pressure, inches of water
- P_t total pressure can be calculated by adding the Velocity pressure and Static pressure (P_s), inches of water
- All pressures are stated and calculated in inches of water.