

1/4" DIAMETER HOLES ON 3/8" STAGGERED CENTERS (STANDARD)

NECK SIZE	P _s	.01	.02	.05	.08	.15	.18	.25
	P _t	.01	.02	.06	.09	.17	.20	.28
	NECK VEL	100	200	300	400	500	600	700
6 x 6	CFM	20	45	65	90	110	135	155
	THROW	2-4-9	6-9-14	9-12-17	11-14-20	13-16-22	14-17-24	15-19-26
	NC	<20	<20	<20	<20	25	29	34
8 x 8	CFM	40	80	120	165	205	245	285
	THROW	3-6-13	9-13-19	13-16-23	15-19-27	17-21-30	19-23-33	20-25-36
	NC	<20	<20	<20	20	27	31	36
12 x 6	CFM	45	90	135	185	230	275	320
	THROW	3-6-14	9-14-20	14-17-25	16-20-29	18-23-32	20-25-36	22-27-38
	NC	<20	<20	<20	21	28	32	37
12 x 8	CFM	60	125	185	250	310	370	455
	THROW	4-8-17	11-17-24	17-20-29	19-24-34	22-27-38	24-29-41	26-31-45
	NC	<20	<20	<20	22	29	33	38
10 x 10	CFM	65	130	195	260	325	390	455
	THROW	4-8-17	11-17-24	17-21-30	20-24-34	22-27-39	24-30-42	26-32-46
	NC	<20	<20	<20	22	29	33	38
14 x 12	CFM	110	220	330	440	555	665	775
	THROW	4-10-21	14-22-32	22-27-39	26-32-45	29-35-50	32-39-55	34-42-59
	NC	<20	<20	<20	25	32	36	41
14 x 14	CFM	130	260	390	520	650	775	905
	THROW	5-11-24	16-24-34	24-30-42	28-34-49	31-39-55	34-42-60	37-46-65
	NC	<20	<20	<20	25	32	36	41
18 x 18	CFM	215	435	650	865	1080	1230	1515
	THROW	6-14-30	20-30-44	30-38-55	36-44-63	41-50-71	44-55-77	48-59-84
	NC	<20	<20	21	28	35	39	44
24 x 24	CFM	390	775	1165	1555	1945	2330	2720
	THROW	8-19-41	27-41-60	41-52-73	49-60-85	55-67-95	60-73-104	65-79-112
	NC	<20	<20	23	30	37	41	46

Test Standard

- ANSI / ASHRAE standard 70

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
- When an opposed blade damper is used, add NC adjustment as shown on page E-5

Throw

- The numbers shown are throw distances, in feet, measured along the jet trajectory axis relating to terminal velocities of 150, 100, & 50 fpm, with the jet attached to a surface.
- Terminal velocity is the air speed, in feet per minute, measured in the supply air stream.
- Velocity: Neck velocity feet per minute

Pressure

- P_t, P_s Total Pressure, static pressure inches of water, measured in the supply duct.

For Return Use

- Adjust the above supply data by adding +1 NC and use the P_t listed as the -P_s

5/16" DIAMETER HOLES ON 7/16" STAGGERED CENTERS (OPTIONAL)

Neck Size		Nom Duct Area, ft ²	Core Vel, fpm	250	300	350	400	450	500	550	600	650	700	
Nom W	Nom H			Pt	0.03	0.04	0.06	0.08	0.10	0.12	0.14	0.17	0.20	0.23
6	6	0.25	CFM	50	60	70	80	90	100	110	120	130	140	
			NC	<20	<20	<20	<20	<20	21	24	26	29	31	
			Throw	4 9 15	6 12 17	8 13 18	10 14 19	12 15 21	13 15 22	13 16 23	14 17 24	14 18 25	15 18 26	
			CFM	90	110	130	150	170	190	210	230	250	260	
8	8	0.44	NC	<20	<20	<20	<20	21	24	27	29	31	33	
			Throw	5 12 21	8 16 23	11 18 25	14 19 27	16 20 28	17 21 30	18 22 32	19 23 33	20 24 34	20 25 35	
			CFM	120	140	170	190	220	240	260	290	310	340	
			NC	<20	<20	<20	<20	22	25	28	30	32	35	
10	8	0.56	Throw	6 14 24	9 18 26	13 20 28	16 21 30	19 23 32	19 24 34	20 25 35	21 26 37	22 27 38	23 28 40	
			CFM	150	180	210	240	270	310	340	370	400	430	
			NC	<20	<20	<20	<20	23	26	29	31	33	36	
			Throw	7 16 27	10 21 29	14 22 32	18 24 34	21 25 36	22 27 38	23 28 40	24 30 42	25 31 44	26 32 45	
12	12	1.00	CFM	220	270	310	360	400	450	490	540	580	630	
			NC	<20	<20	<20	<20	21	25	28	30	33	35	37
			Throw	8 19 32	13 25 36	17 27 38	22 29 41	25 31 44	27 33 46	28 34 48	29 36 51	30 37 52	32 39 55	
			CFM	310	370	430	500	560	620	680	750	810	870	
14	14	1.36	NC	<20	<20	<20	23	26	29	32	34	37	39	
			Throw	10 23 38	15 30 42	20 32 45	27 34 49	30 36 52	31 38 54	33 40 57	34 42 60	36 44 62	37 45 64	
			CFM	340	410	480	550	620	690	750	820	890	960	
			NC	<20	<20	<20	23	26	29	32	35	37	39	
18	12	1.50	Throw	11 24 40	15 31 44	21 34 48	28 36 51	31 38 54	33 40 57	34 42 60	36 44 62	38 46 65	39 48 67	
			CFM	410	490	570	660	740	820	900	980	1070	1150	
			NC	<20	<20	20	24	27	30	33	35	38	40	
			Throw	12 26 44	17 34 48	23 37 52	30 40 56	34 42 59	36 44 62	38 46 65	39 48 68	41 50 71	43 52 74	
16	16	1.78	CFM	540	650	760	870	980	1090	1190	1300	1410	1520	
			NC	<20	<20	21	25	28	31	34	37	39	41	
			Throw	13 30 51	19 39 56	27 42 60	35 45 64	39 48 68	42 51 72	43 53 75	45 56 79	47 58 82	49 60 85	
			CFM	650	780	910	1040	1170	1300	1430	1560	1690	1820	
20	20	2.78	NC	<20	<20	22	26	29	32	35	37	40	42	
			Throw	15 33 56	21 43 61	29 46 66	38 50 70	43 53 74	45 56 79	48 58 82	50 61 86	52 63 90	54 66 93	
			CFM	790	950	1110	1270	1430	1590	1750	1900	2060	2220	
			NC	<20	<20	23	27	30	33	36	38	41	43	
22	22	3.36	Throw	16 37 61	24 47 67	32 51 73	42 55 78	48 58 82	50 61 87	53 64 91	55 67 95	57 70 99	59 73 103	
			CFM	950	1140	1330	1520	1710	1900	2090	2280	2470	2660	
			NC	<20	<20	24	27	31	34	37	39	41	44	
			Throw	18 40 67	26 52 74	35 56 79	46 60 85	52 64 90	55 67 95	57 70 100	60 74 104	62 77 108	65 79 112	
24	24	4.00	CFM	950	1140	1330	1520	1710	1900	2090	2280	2470	2660	
			NC	<20	<20	24	27	31	34	37	39	41	44	
			Throw	18 40 67	26 52 74	35 56 79	46 60 85	52 64 90	55 67 95	57 70 100	60 74 104	62 77 108	65 79 112	

Test Standard

- ANSI / ASHRAE standard 70
- Isothermal conditions

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
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Throw

- The numbers shown are throw distances, in feet, measured along the jet trajectory axis relating to terminal velocities of 150, 100, & 50 fpm, with the jet attached to a surface.
- Terminal velocity is the air speed, in feet per minute, measured in the supply air stream.
- Velocity: Neck velocity feet per minute

Pressure

- P_t, P_s Total Pressure, static pressure inches of water, measured in the supply duct.

For Return Use

- Adjust the above supply data by adding +2 NC and use the P_t listed as the -P_s