

## SQUARE NECK SUPPLY

Neck Size Area Sq. Ft.	Neck Velocity, FPM	300	400	500	600	700	800	900	1000	1200
	Pv, Inches WG	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.09
6" x 6" .250	CFM	75	100	125	150	175	200	225	250	300
	Ps	0.01	0.02	0.02	0.03	0.05	0.06	0.08	0.10	0.14
	NC	<20	<20	<20	<20	23	27	30	33	39
	Throw, 4-way	0-1-2	1-2-3	1-3-5	2-4-5	3-5-6	3-5-7	4-6-8	5-7-9	5-8-11
	Throw, 3 or 2-way	1-1-3	1-3-5	2-4-6	3-6-8	4-7-9	5-8-10	6-9-11	6-10-13	8-11-15
	Throw, 1-way	1-2-4	2-4-7	3-6-9	4-8-11	5-9-13	7-11-14	8-12-16	9-14-18	11-16-22
8" x 8" .444	CFM	135	180	220	265	310	355	400	445	535
	Ps	0.00	0.01	0.01	0.02	0.03	0.03	0.04	0.05	0.08
	NC	<20	<20	<20	21	25	29	33	36	41
	Throw, 4-way	2-3-5	3-5-6	4-6-7	4-7-8	5-7-8	6-8-9	7-8-10	7-9-10	8-10-11
	Throw, 3 or 2-way	3-5-6	4-6-9	5-8-10	6-10-11	7-10-12	8-11-13	10-12-14	10-12-14	11-14-16
	Throw, 1-way	4-9-9	6-16-12	7-10-14	9-13-16	10-15-17	12-16-18	14-17-19	14-18-20	16-19-22
10" x 10" .833	CFM	210	280	345	415	485	555	625	695	835
	Ps	0.01	0.02	0.03	0.04	0.06	0.08	0.10	0.12	0.17
	NC	<20	<20	25	30	35	39	42	45	51
	Throw, 4-way	2-3-4	3-4-6	4-5-7	4-6-9	5-8-10	6-9-12	7-10-13	7-11-14	9-13-17
	Throw, 3 or 2-way	3-5-6	4-6-8	5-8-10	6-9-12	7-11-14	8-12-16	9-14-18	10-15-20	12-18-24
	Throw, 1-way	4-7-9	6-9-12	7-11-14	9-13-17	10-15-20	12-17-23	13-20-26	14-22-29	17-26-33
12" x 12" 1.000	CFM	300	400	500	600	700	800	900	1000	1200
	Ps	0.01	0.02	0.04	0.05	0.07	0.09	0.12	0.15	0.21
	NC	<20	<20	23	28	33	37	40	43	48
	Throw, 4-way	5-7-9	6-9-13	8-12-15	9-14-17	11-16-18	13-17-19	14-18-20	15-19-22	17-20-24
	Throw, 3 or 2-way	7-10-13	9-13-18	11-17-22	13-20-24	16-22-25	18-24-27	20-25-29	22-26-30	24-29-33
	Throw, 1-way	9-14-19	13-19-25	16-24-30	19-28-33	22-31-36	25-33-39	28-35-41	30-37-43	33-41-47
14" x 14" 1.361	CFM	410	545	680	815	955	1090	1225	1360	1635
	Ps	0.01	0.03	0.04	0.06	0.08	0.10	0.13	0.16	0.23
	NC	<20	23	29	34	39	43	46	49	54
	Throw, 4-way	4-6-7	5-7-10	6-9-12	7-11-15	9-13-17	10-15-20	11-16-22	12-18-24	15-22-29
	Throw, 3 or 2-way	5-8-10	7-10-14	9-13-17	10-16-21	12-18-24	14-21-28	16-23-31	17-26-34	21-31-41
	Throw, 1-way	7-11-15	10-15-20	12-18-24	15-22-29	17-26-34	20-29-39	22-33-44	24-37-49	29-44-59
16" x 16" 1.777	CFM	535	710	890	1065	1245	1420	1600	1780	2135
	Ps	0.02	0.04	0.06	0.08	0.11	0.15	0.19	0.23	0.33
	NC	<20	25	31	36	41	45	48	51	56
	Throw, 4-way	5-8-10	7-10-14	9-13-17	10-16-19	12-18-20	14-19-22	16-20-23	17-21-24	19-23-27
	Throw, 3 or 2-way	7-11-15	10-15-20	12-19-24	15-22-27	17-25-29	20-27-31	22-28-33	24-30-34	27-33-38
	Throw 1-way	10-16-21	14-21-28	17-26-34	21-31-38	24-35-41	28-38-44	31-40-46	34-42-49	38-46-53
18" x 18" 2.250	CFM	675	900	1125	1350	1575	1800	2025	2250	2700
	Ps	0.02	0.04	0.06	0.09	0.12	0.15	0.19	0.24	0.34
	NC	<20	26	32	38	42	46	49	52	58
	Throw, 4-way	6-9-12	8-12-16	10-15-19	12-18-21	14-20-23	16-21-24	18-23-26	19-24-27	21-26-30
	Throw, 3 or 2-way	8-12-17	11-17-22	14-21-27	17-25-30	19-28-32	22-30-35	25-32-37	27-34-39	30-37-42
	Throw, 1-way	12-18-24	16-24-31	20-29-39	24-35-42	27-40-46	31-42-49	35-45-52	39-47-55	42-52-60

### 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<sup>-12</sup> 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, with the jet attached to a surface.
- Terminal velocity is the air speed, in feet per minute, measured in the supply air stream.
- Velocity: Feet per minute

### Pressure

- P<sub>s</sub> represents static pressure requirement. Total pressure can be calculated as P<sub>t</sub> = P<sub>s</sub> + P<sub>v</sub>
- P<sub>v</sub> is the air velocity pressure in the duct and is calculated as P<sub>v</sub> = (Velocity/4005)<sup>2</sup>
- All pressures are stated and calculated in inches of water

**IMPORTANT** It is the specifier's responsibility to properly configure the HVAC system to meet the appropriate level of comfort, safety, security and detention

## ROUND NECK SUPPLY

Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	900	1000	1200
Area Sq. Ft.	Pv, Inches WG	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.09
6" DIA .196	CFM	60	80	100	120	135	155	175	195	235
	Ps	0.01	0.01	0.016	0.024	0.030	0.039	0.050	0.063	0.091
	NC	<20	<20	<20	21	25	29	32	35	41
	Throw, 4-way	0-1-2	1-2-2	1-2-3	2-2-3	2-3-4	2-3-4	2-4-5	3-4-5	3-5-7
	Throw, 3 or 2-way	1-1-2	1-2-3	2-3-4	2-4-5	3-4-5	3-5-6	3-5-7	4-6-8	5-7-9
	Throw, 1-way	1-2-3	1-3-4	2-4-6	3-5-7	4-6-7	4-6-9	5-7-10	5-8-11	7-10-13
8" DIA .348	CFM	105	140	175	210	245	280	315	350	420
	Ps	0.01	0.02	0.03	0.04	0.05	0.06	0.08	0.10	0.15
	NC	<20	<20	20	26	30	34	37	40	46
	Throw, 4-way	1-2-3	1-3-5	2-5-6	3-6-8	4-7-8	5-8-9	6-8-9	6-9-10	8-9-11
	Throw, 3 or 2-way	1-2-4	2-4-7	3-7-9	4-8-11	6-10-12	7-11-13	8-12-13	9-12-14	11-13-15
	Throw, 1-way	2-4-6	3-6-10	4-10-13	6-12-15	9-14-17	10-15-18	12-16-19	13-17-20	15-19-22
10" DIA .545	CFM	165	220	275	325	380	435	490	545	655
	Ps	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.08	0.11
	NC	<20	<20	22	27	31	35	38	41	47
	Throw, 4-way	2-4-5	3-5-7	4-6-8	5-7-9	6-8-9	6-9-10	7-9-11	8-10-11	9-11-12
	Throw, 3 or 2-way	3-5-7	5-7-9	6-9-11	7-10-12	8-11-13	9-12-14	10-13-15	11-14-16	12-15-17
	Throw, 1-way	4-7-10	7-10-13	8-12-16	10-14-17	11-16-19	13-17-20	15-18-21	16-19-22	17-21-25
12" DIA .785	CFM	235	315	395	470	550	630	705	785	940
	Ps	0.01	0.02	0.04	0.05	0.07	0.10	0.12	0.15	0.22
	NC	<20	22	29	34	38	42	46	49	54
	Throw, 4-way	2-3-5	3-5-6	4-6-8	5-7-9	5-8-11	6-9-12	7-10-14	8-12-15	9-14-18
	Throw, 3 or 2-way	3-5-7	4-7-9	5-8-11	7-10-13	8-11-15	9-13-17	10-15-20	11-16-22	13-20-25
	Throw, 1-way	5-7-9	6-9-12	8-12-15	9-14-18	11-16-22	12-18-25	14-21-28	15-23-31	18-28-35
14" DIA 1.070	CFM	320	430	535	640	750	855	960	1070	1285
	Ps	0.02	0.03	0.04	0.06	0.08	0.11	0.14	0.17	0.24
	NC	<20	<20	25	30	35	39	42	45	50
	Throw, 4-way	5-7-9	6-9-13	8-12-16	9-14-17	11-16-19	13-17-20	14-18-21	16-19-22	17-21-24
	Throw, 3 or 2-way	7-10-13	9-13-18	11-17-22	13-20-24	16-23-26	18-24-28	20-26-30	22-27-32	24-30-35
	Throw, 1-way	9-14-19	13-19-25	16-24-31	19-28-34	22-32-37	25-35-40	28-37-42	31-39-45	35-42-49
16" DIA 1.396	CFM	420	560	700	840	975	1115	1255	1395	1675
	Ps	0.02	0.03	0.04	0.06	0.08	0.11	0.14	0.17	0.24
	NC	<20	23	30	35	39	43	47	50	55
	Throw, 4-way	4-5-7	5-7-10	6-9-12	7-11-14	8-13-17	10-14-19	11-16-22	12-18-24	14-22-29
	Throw, 3 or 2-way	5-8-10	7-10-14	8-13-17	10-15-20	12-18-24	14-20-27	15-23-30	17-25-34	20-30-41
	Throw 1-way	7-11-14	10-14-19	12-18-24	14-22-29	17-25-33	19-29-38	22-32-43	24-36-48	29-43-57
18" DIA 1.767	CFM	530	705	885	1060	1235	1415	1590	1765	2120
	Ps	0.02	0.04	0.06	0.08	0.11	0.15	0.18	0.23	0.33
	NC	<20	25	31	36	41	45	48	51	56
	Throw, 4-way	5-8-10	7-10-13	8-13-17	10-15-19	12-18-20	13-19-22	15-20-23	17-21-24	19-23-27
	Throw, 3 or 2-way	7-11-14	10-14-19	12-18-24	14-21-27	17-25-29	19-27-31	21-28-33	24-30-34	27-33-38
	Throw, 1-way	10-15-20	13-20-27	17-25-34	20-30-38	24-35-41	27-38-43	30-40-46	34-42-49	38-46-53

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