

### PERFORMANCE DATA | SQUARE NECK, 24x24 PANEL, 4-WAY, NO DAMPER

NOM DUCT	IP DATA					SOUND	METRIC DATA					
	NECK VEL	AIR FLOW	Pt	Pv	4-WAY THROW		NOM DUCT	NECK VEL	AIR FLOW	Pt	Pv	4-WAY THROW
	in	fpm	cfm	in wg	in wg		ft	NC	cm	m/s	l/s	Pa
6 x 6	300	75	0.017	.006	1 - 2 - 4	-	15.2 x 15.2	1.52	35	4.2	1.5	30 - 63 - 122
	400	100	0.029	.010	2 - 2 - 5	-		2.03	47	7.2	2.5	61 - 63 - 152
	500	125	0.046	.016	2 - 3 - 6	13		2.54	59	11.5	4.0	61 - 94 - 183
	600	150	0.066	.022	2 - 4 - 7	19		3.05	71	16.4	5.5	61 - 126 - 213
	700	175	0.090	.031	3 - 4 - 9	23		3.56	83	22.4	7.7	91 - 126 - 274
	800	200	0.118	.040	3 - 5 - 10	28		4.06	94	29.4	10.0	91 - 157 - 305
	1000	250	0.184	.062	4 - 6 - 11	35		5.08	118	45.8	15.4	122 - 189 - 335
	1200	300	0.265	.090	5 - 7 - 12	41		6.10	142	66.0	22.4	152 - 220 - 366
8 x 8	1400	350	0.360	.122	6 - 9 - 13	45	7.11	165	89.6	30.4	183 - 283 - 396	
	300	133	0.019	.006	1 - 3 - 6	-	20.3 x 20.3	1.52	63	4.7	1.5	30 - 94 - 183
	400	178	0.034	.010	2 - 4 - 7	12		2.03	84	8.5	2.5	61 - 126 - 213
	500	222	0.052	.016	3 - 5 - 9	19		2.54	105	12.9	4.0	91 - 157 - 274
	600	267	0.075	.022	4 - 6 - 11	25		3.05	126	18.7	5.5	122 - 189 - 335
	700	311	0.103	.031	4 - 7 - 13	29		3.56	147	25.6	7.7	122 - 220 - 396
	800	356	0.134	.040	5 - 7 - 15	34		4.06	168	33.4	10.0	152 - 220 - 457
	1000	444	0.210	.062	6 - 9 - 16	41		5.08	210	52.3	15.4	183 - 283 - 488
1200	533	0.302	.090	7 - 11 - 18	47	6.10		252	75.2	22.4	213 - 346 - 549	
10 x 10	1400	622	0.411	.122	9 - 13 - 19	51	7.11	294	102.3	30.4	274 - 409 - 579	
	300	208	0.022	.006	2 - 3 - 7	-	25.4 x 25.4	1.52	98	5.5	1.5	61 - 94 - 213
	400	278	0.039	.010	3 - 5 - 9	16		2.03	131	9.7	2.5	91 - 157 - 274
	500	347	0.061	.016	4 - 6 - 12	23		2.54	164	15.2	4.0	122 - 189 - 366
	600	417	0.087	.022	5 - 7 - 14	29		3.05	197	21.7	5.5	152 - 220 - 427
	700	486	0.119	.031	5 - 8 - 16	34		3.56	229	29.6	7.7	152 - 252 - 488
	800	556	0.155	.040	6 - 9 - 18	38		4.06	262	38.6	10.0	183 - 283 - 549
	1000	694	0.243	.062	8 - 12 - 20	45		5.08	328	60.5	15.4	244 - 378 - 610
1200	833	0.349	.090	9 - 14 - 22	51	6.10		393	86.9	22.4	274 - 441 - 671	
12 x 12	1400	972	0.476	.122	11 - 16 - 24	56	7.11	459	118.5	30.4	335 - 504 - 732	
	300	300	0.032	.006	4 - 6 - 12	-	30.5 x 30.5	1.52	142	8.0	1.5	122 - 189 - 366
	400	400	0.057	.010	6 - 8 - 16	20		2.03	189	14.2	2.5	183 - 252 - 488
	500	500	0.089	.016	7 - 10 - 17	27		2.54	236	22.2	4.0	213 - 315 - 518
	600	600	0.128	.022	8 - 12 - 19	33		3.05	283	31.9	5.5	244 - 378 - 579
	700	700	0.174	.031	10 - 15 - 21	38		3.56	330	43.3	7.7	305 - 472 - 640
	800	800	0.227	.040	11 - 16 - 22	42		4.06	378	56.5	10.0	335 - 504 - 671
	1000	1000	0.355	.062	14 - 17 - 25	49		5.08	472	88.4	15.4	427 - 535 - 762
1200	1200	0.510	.090	16 - 19 - 27	55	6.10		566	127.0	22.4	488 - 598 - 823	
1400	1400	0.695	.122	17 - 21 - 29	60	7.11	661	173.1	30.4	518 - 661 - 884		

**NOTES:** Throw values are based on terminal velocities of 150, 100, and 50 FPM. Throw values are given for isothermal conditions. Sound data based on a 4 foot grille. Test conducted in accordance with ANSI / ASHRAE Standard 70, ISO 5219, and ISO 3741. Throw values given for 1-Way Throw are for [Total CFM] CFM per side (L/s). Throw values given for 2-Way Throw are for [Total CFM] CFM per side (L/s). Throw values given for 3-Way Throw are for [Total CFM] CFM per side (L/s).

## PERFORMANCE DATA | ROUND NECK, 24x24 PANEL, 4-WAY, NO DAMPER

NOM DUCT	IP DATA					SOUND	METRIC DATA					
	NECK VEL	AIR FLOW	Pt	Pv	4-WAY THROW		NOM DUCT	NECK VEL	AIR FLOW	Pt	Pv	4-WAY THROW
	in	fpm	cfm	in wg	in wg		ft	NC	cm	m/s	l/s	Pa
6	300	59	0.016	.006	1 - 2 - 4	-	15.2	1.52	28	4.0	1.5	30 - 63 - 122
	400	79	0.028	.010	2 - 2 - 5	-		2.03	37	7.0	2.5	61 - 63 - 152
	500	98	0.044	.016	2 - 3 - 6	-		2.54	46	11.0	4.0	61 - 94 - 183
	600	118	0.064	.022	2 - 4 - 7	16		3.05	56	15.9	5.5	61 - 126 - 213
	700	137	0.087	.031	3 - 4 - 9	21		3.56	65	21.7	7.7	91 - 126 - 274
	800	157	0.113	.040	3 - 5 - 10	25		4.06	74	28.1	10.0	91 - 157 - 305
	1000	196	0.177	.062	4 - 6 - 11	32		5.08	93	44.1	15.4	122 - 189 - 335
	1200	236	0.255	.090	5 - 7 - 12	38		6.10	111	63.5	22.4	152 - 220 - 366
1400	275	0.347	.122	6 - 9 - 13	43	7.11	130	86.4	30.4	183 - 283 - 396		
8	300	105	0.018	.006	1 - 2 - 5	-	20.3	1.52	50	4.5	1.5	30 - 63 - 152
	400	140	0.032	.010	2 - 3 - 7	-		2.03	66	8.0	2.5	61 - 94 - 213
	500	175	0.049	.016	3 - 4 - 8	16		2.54	83	12.2	4.0	91 - 126 - 244
	600	2090	0.071	.022	3 - 5 - 10	22		3.05	986	17.7	5.5	91 - 157 - 305
	700	244	0.097	.031	4 - 6 - 12	27		3.56	115	24.2	7.7	122 - 189 - 366
	800	279	0.126	.040	4 - 7 - 13	31		4.06	132	31.4	10.0	122 - 220 - 396
	1000	349	0.197	.062	5 - 8 - 15	38		5.08	165	49.1	15.4	152 - 252 - 457
	1200	419	0.284	.090	7 - 10 - 16	44		6.10	198	70.7	22.4	213 - 315 - 488
1400	489	0.386	.122	8 - 12 - 17	49	7.11	231	96.1	30.4	244 - 378 - 518		
10	300	164	0.020	.006	1 - 3 - 6	-	25.4	1.52	77	5.0	1.5	30 - 94 - 183
	400	218	0.036	.010	3 - 4 - 8	14		2.03	103	9.0	2.5	91 - 126 - 244
	500	273	0.056	.016	3 - 5 - 10	21		2.54	129	13.9	4.0	91 - 157 - 305
	600	327	0.080	.022	4 - 6 - 12	27		3.05	154	19.9	5.5	122 - 189 - 366
	700	382	0.109	.031	5 - 7 - 14	32		3.56	180	27.1	7.7	152 - 220 - 427
	800	436	0.143	.040	5 - 8 - 16	36		4.06	206	35.6	10.0	152 - 252 - 488
	1000	545	0.223	.062	7 - 10 - 18	43		5.08	257	55.5	15.4	213 - 315 - 549
	1200	654	0.321	.090	8 - 12 - 20	49		6.10	309	79.9	22.4	244 - 378 - 610
1400	764	0.437	.122	10 - 14 - 21	54	7.11	361	108.8	30.4	305 - 441 - 640		
12	300	236	0.032	.006	4 - 6 - 11	-	30.5	1.52	111	8.0	1.5	122 - 189 - 335
	400	314	0.057	.010	5 - 7 - 14	18		2.03	148	14.2	2.5	152 - 220 - 427
	500	393	0.089	.016	6 - 9 - 15	25		2.54	185	22.2	4.0	183 - 283 - 457
	600	471	0.128	.022	7 - 11 - 17	30		3.05	222	31.9	5.5	213 - 346 - 518
	700	550	0.174	.031	9 - 13 - 18	35		3.56	260	43.3	7.7	274 - 409 - 549
	800	628	0.227	.040	10 - 14 - 19	40		4.06	296	56.5	10.0	305 - 441 - 579
	1000	785	0.355	.062	12 - 15 - 22	47		5.08	370	88.4	15.4	366 - 472 - 671
	1200	942	0.510	.090	14 - 17 - 24	52		6.10	445	127.0	22.4	427 - 535 - 732
1400	1100	0.695	.122	15 - 18 - 26	57	7.11	519	173.1	30.4	457 - 567 - 792		
14	300	321	0.034	.006	4 - 6 - 13	12	35.6	1.52	151	8.5	1.5	122 - 189 - 396
	400	428	0.060	.010	6 - 9 - 16	21		2.03	202	14.9	2.5	183 - 283 - 488
	500	535	0.093	.016	7 - 11 - 18	28		2.54	252	23.2	4.0	213 - 346 - 549
	600	641	0.135	.022	9 - 13 - 20	34		3.05	303	33.6	5.5	274 - 409 - 610
	700	748	0.183	.031	10 - 15 - 21	38		3.56	353	45.6	7.7	305 - 472 - 640
	800	855	0.239	.040	11 - 16 - 23	43		4.06	404	59.5	10.0	335 - 504 - 701
	1000	1069	0.374	.062	14 - 18 - 25	50		5.08	505	93.1	15.4	427 - 567 - 762
	1200	1283	0.538	.090	16 - 20 - 28	56		6.10	606	134.0	22.4	488 - 630 - 853
1400	1497	0.733	.122	17 - 21 - 30	60	7.11	707	182.5	30.4	518 - 661 - 914		
16	300	419	0.036	.006	5 - 7 - 15	14	40.6	1.52	198	9.0	1.5	152 - 220 - 457
	400	559	0.063	.010	7 - 10 - 18	23		2.03	264	15.7	2.5	213 - 315 - 549
	500	698	0.099	.016	8 - 12 - 21	31		2.54	329	24.7	4.0	244 - 378 - 640
	600	838	0.143	.022	10 - 15 - 23	36		3.05	395	35.6	5.5	305 - 472 - 701
	700	977	0.194	.031	11 - 17 - 24	41		3.56	461	48.3	7.7	335 - 535 - 732
	800	1117	0.253	.040	13 - 18 - 26	45		4.06	527	63.0	10.0	396 - 567 - 792
	1000	1396	0.396	.062	16 - 21 - 29	53		5.08	659	98.6	15.4	488 - 661 - 884
	1200	1686	0.570	.090	18 - 23 - 32	58		6.10	796	141.9	22.4	549 - 724 - 975
1400	1955	0.776	.122	20 - 24 - 34	63	7.11	923	193.2	30.4	610 - 756 - 1036		

NOTE: See notes on previous page.

### PERFORMANCE DATA | SQUARE NECK, 24x24 PANEL, 1-3-WAY, NO DAMPER

NOM DUCT		IP DATA					NOM DUCT		METRIC DATA				
NECK VEL	AIR FLOW	1-WAY THROW	2-WAY THROW	3-WAY THROW		NECK VEL	AIR FLOW	1-WAY THROW	2-WAY THROW	3-WAY THROW			
in	fpm	cfm	ft	ft	ft	cm	m/s	l/s	m	m	m		
6 x 6	300	75	1-3-9	1-3-6	1-3-5	15.2 x 15.2	1.52	35	0-1-3	0-1-3	0-1-2		
	400	100	2-5-12	2-4-9	2-4-7		2.03	47	1-2-4	1-1-4	1-1-2		
	500	125	3-7-15	3-5-11	3-5-9		2.54	59	1-2-5	1-2-5	1-2-3		
	600	150	5-9-17	4-6-13	4-5-11		3.05	71	2-3-5	1-2-5	1-2-3		
	700	175	7-10-19	5-8-15	4-6-13		3.56	83	2-3-6	2-2-6	1-2-4		
	800	200	8-12-20	6-9-17	5-7-14		4.06	94	2-4-6	2-3-6	2-2-4		
	1000	250	10-15-22	7-11-19	6-9-16		5.08	118	3-5-7	2-3-7	2-3-5		
	1200	300	12-17-24	9-13-21	7-11-17		6.10	142	4-5-7	3-4-7	2-3-5		
8 x 8	1400	350	14-19-26	10-15-22	9-13-19	7.11	165	4-6-8	3-5-8	3-4-6			
	300	133	2-4-12	2-4-9	2-4-7	20.3 x 20.3	1.52	63	1-1-4	1-1-4	1-1-2		
	400	178	3-7-16	3-6-11	3-5-10		2.03	84	1-2-5	1-2-5	1-2-3		
	500	222	5-10-20	5-7-14	4-6-12		2.54	105	2-3-6	2-2-6	1-2-4		
	600	267	7-12-23	6-9-17	5-7-15		3.05	126	2-4-7	2-3-7	2-2-5		
	700	311	9-14-25	7-10-20	6-9-17		3.56	147	3-4-8	2-3-8	2-3-5		
	800	356	10-16-27	8-11-23	6-10-19		4.06	168	3-5-8	2-3-8	2-3-6		
	1000	444	13-20-30	10-14-25	8-12-21		5.08	210	4-6-9	3-4-9	2-4-6		
1200	533	16-23-33	11-17-28	10-15-23	6.10		252	5-7-10	3-5-10	3-5-7			
10 x 10	1400	622	18-25-35	13-20-30	11-17-25	7.11	294	5-8-11	4-6-11	3-5-8			
	300	208	2-5-15	2-5-11	2-5-9	25.4 x 25.4	1.52	98	1-2-5	1-2-5	1-2-3		
	400	278	4-8-20	4-7-14	4-6-12		2.03	131	1-2-6	1-2-6	1-2-4		
	500	347	6-12-25	6-9-18	5-8-15		2.54	164	2-4-8	2-3-8	2-2-5		
	600	417	8-15-29	7-11-21	6-9-18		3.05	197	2-5-9	2-3-9	2-3-5		
	700	486	11-17-31	8-13-25	7-11-21		3.56	229	3-5-9	2-4-9	2-3-6		
	800	556	13-20-33	10-14-28	8-12-23		4.06	262	4-6-10	3-4-10	2-4-7		
	1000	694	16-25-37	12-18-32	10-15-26		5.08	328	5-8-11	4-5-11	3-5-8		
1200	833	20-29-41	14-21-35	12-18-29	6.10		393	6-9-12	4-6-12	4-5-9			
12 x 12	1400	972	23-31-44	17-25-37	14-21-31	7.11	459	7-9-13	5-8-13	4-6-9			
	300	300	8-13-24	6-10-19	5-8-16	30.5 x 30.5	1.52	142	2-4-7	2-3-7	2-2-5		
	400	400	12-18-28	9-13-24	7-11-20		2.03	189	4-5-9	3-4-9	2-3-6		
	500	500	15-22-32	11-16-27	9-14-22		2.54	236	5-7-10	3-5-10	3-4-7		
	600	600	18-24-35	13-19-29	11-16-24		3.05	283	5-7-11	4-6-11	3-5-7		
	700	700	20-26-37	15-22-32	13-19-26		3.56	330	6-8-11	5-7-11	4-6-8		
	800	800	23-28-40	17-24-34	14-20-28		4.06	378	7-9-12	5-7-12	4-6-9		
	1000	1000	26-32-45	21-27-38	18-22-31		5.08	472	8-10-14	6-8-14	5-7-9		
1200	1200	28-35-49	24-29-42	20-24-34	6.10		566	9-11-15	7-9-15	6-7-10			
1400	1400	31-37-53	26-32-45	21-26-37	7.11	661	9-11-16	8-10-16	6-8-11				

**NOTES:** Throw values are based on terminal velocities of 150, 100, and 50 FPM. Throw Values are given for isothermal conditions. Sound data based on a 4 foot grille. Test conducted in accordance with ANSI / ASHRAE Standard 70, ISO 5219, and ISO 3741. Throw values given for 1-Way Throw are for [Total CFM] CFM per side (L/s). Throw values given for 2-Way Throw are for [Total CFM] CFM per side (L/s). Throw values given for 3-Way Throw are for [Total CFM] CFM per side (L/s).

# 9S84P

Stainless Steel Supply Diffuser, Perforated Face



## PERFORMANCE DATA | ROUND NECK, 24x24 PANEL, 1-3-WAY, NO DAMPER

IP DATA						METRIC DATA					
NOM DUCT	NECK VEL	AIR FLOW	1-WAY THROW	2-WAY THROW	3-WAY THROW	NOM DUCT	NECK VEL	AIR FLOW	1-WAY THROW	2-WAY THROW	3-WAY THROW
in	fpm	cfm	ft	ft	ft	cm	m/s	l/s	m	m	m
6	300	59	1-2-8	1-2-6	1-2-5	15.2	1.52	28	0-1-2	0-1-2	0-1-2
	400	79	2-4-10	2-4-8	2-3-6		2.03	37	1-1-3	1-1-3	1-1-2
	500	98	3-7-13	3-5-10	3-4-8		2.54	46	1-2-4	1-2-4	1-1-2
	600	118	4-8-15	4-6-11	3-5-10		3.05	56	1-2-5	1-2-5	1-2-3
	700	137	6-9-17	4-7-13	4-6-11		3.56	65	2-3-5	1-2-5	1-2-3
	800	157	7-10-18	5-8-15	4-6-12		4.06	74	2-3-5	2-2-5	1-2-4
	1000	196	9-13-20	6-10-17	5-8-14		5.08	93	3-4-6	2-3-6	2-2-4
	1200	236	10-15-22	8-11-18	6-10-15		6.10	111	3-5-7	2-3-7	2-3-5
1400	275	12-17-23	9-13-20	8-11-16	7.11	130	4-5-7	3-4-7	2-3-5		
8	300	105	1-3-10	1-3-8	2-3-6	20.3	1.52	50	0-1-3	0-1-3	1-1-2
	400	140	3-6-14	3-5-10	3-4-9		2.03	66	1-2-4	1-2-4	1-1-3
	500	175	4-9-17	4-6-13	4-5-11		2.54	83	1-3-5	1-2-5	1-2-3
	600	2090	6-10-20	5-8-15	4-6-13		3.05	986	2-3-6	2-2-6	1-2-4
	700	244	8-12-22	6-9-18	5-8-15		3.56	115	2-4-7	2-3-7	2-2-5
	800	279	9-14-24	7-10-20	6-9-17		4.06	132	3-4-7	2-3-7	2-3-5
	1000	349	12-17-26	8-13-22	7-11-18		5.08	165	4-5-8	2-4-8	2-3-5
	1200	419	14-20-29	10-15-25	9-13-20		6.10	198	4-6-9	3-5-9	3-4-6
1400	489	16-22-31	12-18-27	10-15-22	7.11	231	5-7-9	4-5-9	3-5-7		
10	300	164	2-4-13	2-4-10	2-4-8	25.4	1.52	77	1-1-4	1-1-4	1-1-2
	400	218	3-7-17	3-6-13	4-5-11		2.03	103	1-2-5	1-2-5	1-2-3
	500	273	5-11-22	5-8-16	4-7-13		2.54	129	2-3-7	2-2-7	1-2-4
	600	327	7-13-26	6-10-19	5-8-16		3.05	154	2-4-8	2-3-8	2-2-5
	700	382	10-15-28	7-11-22	6-9-19		3.56	180	3-5-9	2-3-9	2-3-6
	800	436	12-17-30	8-13-25	7-11-21		4.06	206	4-5-9	2-4-9	2-3-6
	1000	545	15-22-33	11-16-28	9-13-23		5.08	257	5-7-10	3-5-10	3-4-7
	1200	654	17-26-36	13-19-31	11-16-25		6.10	309	5-8-11	4-6-11	3-5-8
1400	764	20-28-39	15-22-33	13-19-27	7.11	361	6-9-12	5-7-12	4-6-8		
12	300	236	7-12-22	6-8-17	5-7-14	30.5	1.52	111	2-4-7	2-2-7	2-2-4
	400	314	10-16-25	8-11-21	6-10-18		2.03	148	3-5-8	2-3-8	2-3-5
	500	393	13-19-28	9-14-24	8-12-20		2.54	185	4-6-9	3-4-9	2-4-6
	600	471	16-22-31	11-17-26	10-14-21		3.05	222	5-7-9	3-5-9	3-4-6
	700	550	18-23-33	13-20-28	11-16-23		3.56	260	5-7-10	4-6-10	3-5-7
	800	628	20-25-35	15-21-30	13-18-25		4.06	296	6-8-11	5-6-11	4-5-8
	1000	785	23-28-40	19-24-34	16-20-28		5.08	370	7-9-12	6-7-12	5-6-9
	1200	942	25-31-43	21-26-37	18-21-30		6.10	445	8-9-13	6-8-13	5-6-9
1400	1100	27-33-47	23-28-40	19-23-33	7.11	519	8-10-14	7-9-14	6-7-10		
14	300	321	8-14-25	7-10-20	6-8-17	36.0	1.52	151	2-4-8	2-3-8	2-2-5
	400	428	12-18-29	9-13-25	7-11-20		2.03	202	4-5-9	3-4-9	2-3-6
	500	535	15-26-33	11-17-28	9-14-23		2.54	252	5-8-10	3-5-10	3-4-7
	600	641	18-25-36	13-20-30	11-17-25		3.05	303	5-8-11	4-6-11	3-5-8
	700	748	21-27-39	15-23-33	13-19-27		3.56	353	6-8-12	5-7-12	4-6-8
	800	855	24-29-41	18-25-35	15-20-29		4.06	404	7-9-12	5-8-12	5-6-9
	1000	1069	27-33-46	22-28-39	19-23-32		5.08	505	8-10-14	7-9-14	6-7-10
	1200	1283	29-36-51	25-30-43	20-25-35		6.10	606	9-11-16	8-9-16	6-8-11
1400	1497	32-39-55	27-33-47	22-27-38	7.11	707	10-12-17	8-10-17	7-8-12		
16	300	419	10-16-29	8-11-23	6-10-19	41.0	1.52	198	3-5-9	2-3-9	2-3-6
	400	559	14-21-33	10-15-28	9-13-23		2.03	264	4-6-10	3-5-10	3-4-7
	500	698	17-26-37	13-19-32	11-16-26		2.54	329	5-8-11	4-6-11	3-5-8
	600	838	21-29-41	15-23-35	13-19-29		3.05	395	6-9-12	5-7-12	4-6-9
	700	977	24-31-44	18-26-38	15-22-31		3.56	461	7-9-13	5-8-13	5-7-9
	800	1117	27-33-48	20-28-40	17-23-33		4.06	527	8-10-15	6-9-15	5-7-10
	1000	1396	31-37-53	25-32-45	21-26-37		5.08	659	9-11-16	8-10-16	6-8-11
	1200	1686	33-41-58	28-35-49	23-29-41		6.10	796	10-12-18	9-11-18	7-9-12
1400	1955	36-44-63	31-38-53	25-31-44	7.11	923	11-13-19	9-12-19	8-9-13		

NOTE: See notes on previous page.