

**HELICAL SWIRL DIFFUSER PERFORMANCE DATA – 24 x 24**

**Inlet size 6"**

Neck Velocity	300	400	500	600	700	800	900	1000
VP	0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
Total Pressure	0.01	0.018	0.028	0.04	0.054	0.071	0.09	0.111
CFM	59	79	98	118	137	157	177	196
NC (dB)	-	-	-	-	20	23	25	28
Throw (ft)	1-1-2	1-1-2	1-1-3	1-2-4	1-2-4	2-2-5	2-3-5	2-3-6

**Inlet size 8"**

Neck Velocity	300	400	500	600	700	800	900	1000
VP	0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
Total Pressure	0.017	0.03	0.047	0.068	0.092	0.12	0.152	0.188
CFM	105	140	174	209	244	279	314	349
NC (dB)	-	-	-	19	22	25	28	30
Throw (ft)	1-2-3	1-2-4	2-3-5	2-3-6	2-4-7	3-4-7	3-5-8	3-5-8

**Inlet size 10"**

Neck Velocity	300	400	500	600	700	800	900	1000
VP	0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
Total Pressure	0.029	0.051	0.079	0.114	0.156	0.203	0.257	0.318
CFM	164	218	273	327	382	436	491	545
NC (dB)	-	-	17	21	24	27	30	32
Throw (ft)	2-2-5	2-3-6	3-4-7	3-5-8	4-6-8	4-6-9	5-7-9	5-7-10

**Inlet size 12"**

Neck Velocity	300	400	500	600	700	800	900	1000
VP	0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
Total Pressure	0.048	0.086	0.134	0.194	0.264	0.344	0.436	0.538
CFM	236	314	393	471	550	628	707	785
NC (dB)	-	-	19	23	26	29	32	34
Throw (ft)	2-4-7	3-5-8	4-6-8	5-7-9	5-7-10	6-8-11	7-8-11	7-8-12

**Inlet size 14"**

Neck Velocity	300	400	500	600	700	800	900	1000
VP	0.006	0.01	0.016	0.022	0.031	0.04	0.052	0.064
Total Pressure	0.082	0.146	0.228	0.328	0.446	0.583	0.748	0.912
CFM	321	428	535	641	748	855	962	1070
NC (dB)	-	-	20	24	27	30	33	35
Throw (ft)	3-5-8	4-6-9	5-7-10	6-8-11	7-8-12	7-9-12	8-10-13	9-11-14

**Inlet size 16"**

Neck Velocity	300	400	500	600	700	800
VP	0.006	0.01	0.016	0.022	0.032	0.04
Total Pressure	0.139	0.247	0.385	0.555	0.772	0.988
CFM	419	558	698	837	978	1118
NC (dB)	-	-	21	25	28	31
Throw (ft)	4-6-9	6-7-10	6-8-11	7-9-12	7-10-13	8-11-14

**Performance Notes :**

1. Tested in accordance with ASHRAE Standard 70-2006 " Method of Testing for Rating the Performance of Air outlets and Inlets ".
2. Air flow is in cubic feet per minute, CFM.
3. All pressures are in inches of water.
4. Throw values are given in feet to terminal velocities of 150 - 100 - 50 fpm.
5. Throw data is based on supply air and room air at isothermal conditions.
6. The NC values, sound pressure level, are based on a room absorption of 10 dB re 10<sup>12</sup> watts and one diffuser.
7. Blanks " - " indicate an NC level below 15.