

## SS Spiral Diffuser (Page 69)

### Model SS Spiral Diffuser (1/2" wide slot) nonducted

1 Slot	Airflow Rate	7	10	13	17	20	23	27	30	33	37
	Static Pressure	.002	.003	.006	.009	.016	.018	.024	.030	.037	.045
	Horizontal Throw	7-4-2	11-6-4	15-7-5	19-9-6	22-11-7	26-13-9	30-15-10	33-17-11	37-19-12	41-20-14
	Noise Criteria	<15	<15	<15	<15	<15	<15	19	21	23	25

2 Slot	Airflow Rate	10	17	23	30	37	43	50	57	63	70
	Static Pressure	.001	.002	.004	.007	.011	.015	.020	.026	.032	.039
	Horizontal Throw	6-3-2	9-5-3	13-6-4	17-8-6	20-10-7	24-12-8	28-14-9	31-16-10	35-18-12	39-19-13
	Noise Criteria	<15	<15	<15	<15	<15	<15	19	23	27	31

3 Slot	Airflow Rate	13	23	33	43	53	63	73	83	93	103
	Static Pressure	.001	.002	.004	.006	.009	.012	.017	.021	.027	.033
	Horizontal Throw	5-3-2	10-5-3	14-7-5	18-9-6	22-11-7	26-13-9	30-15-10	34-17-11	38-19-13	42-21-14
	Noise Criteria	<15	<15	<15	<15	<15	18	21	25	30	33

4 Slot	Airflow Rate	17	30	43	57	70	83	97	110	123	137
	Static Pressure	.001	.002	.003	.005	.008	.012	.016	.020	.025	.031
	Horizontal Throw	6-3-2	10-5-3	15-8-5	20-10-7	24-12-8	29-14-10	31-17-11	38-19-13	43-21-14	47-24-16
	Noise Criteria	<15	<15	<15	<15	18	20	22	27	32	34

### Model SS Spiral Diffuser (3/4" wide slot) nonducted

1 Slot	Airflow Rate	10	15	20	25	30	35	40	45	50	55
	Static Pressure	.002	.004	.007	.011	.015	.020	.027	.034	.042	.050
	Horizontal Throw	6-3-2	9-5-3	12-6-4	15-8-5	18-9-6	22-11-7	25-12-8	28-14-9	31-15-10	34-17-11
	Noise Criteria	<15	<15	<15	<15	19	21	25	30	34	39

2 Slot	Airflow Rate	15	25	35	45	55	65	75	85	95	105
	Static Pressure	.001	.003	.005	.008	.012	.017	.022	.029	.036	.044
	Horizontal Throw	5-2-2	8-4-3	11-5-4	14-7-5	17-8-6	20-10-7	23-12-8	26-13-9	29-15-10	32-16-11
	Noise Criteria	<15	<15	<15	<15	19	26	32	35	38	41

3 Slot	Airflow Rate	20	35	50	65	80	95	110	125	140	155
	Static Pressure	.001	.002	.004	.007	.010	.014	.019	.024	.030	.037
	Horizontal Throw	5-2-2	8-4-3	11-6-4	15-7-5	18-9-6	22-11-7	25-12-8	28-14-9	32-16-11	35-18-12
	Noise Criteria	<15	<15	<15	18	23	28	33	37	40	43

4 Slot	Airflow Rate	25	45	65	85	105	125	145	165	185	205
	Static Pressure	.001	.002	.004	.006	.009	.013	.017	.023	.028	.035
	Horizontal Throw	5-2-2	9-4-3	13-6-4	16-8-5	20-10-7	24-12-8	28-14-9	32-16-11	38-19-12	40-20-13
	Noise Criteria	<15	<15	17	22	25	29	33	37	40	43

## SS Spiral Diffuser (Page 69)

### Model SS Spiral Diffuser (1" wide slot) nonducted

1 Slot	Airflow Rate	13	20	27	33	40	47	53	60	67	73
	Static Pressure	.002	.005	.009	.014	.020	.027	.036	.045	.056	.067
	Horizontal Throw	5-2-2	7-4-2	10-5-3	12-6-4	15-7-5	17-9-6	20-10-7	22-11-7	25-12-8	27-14-9
	Noise Criteria	<15	<15	<15	20	25	31	37	41	43	45

2 Slot	Airflow Rate	20	33	47	60	79	87	100	113	127	140
	Static Pressure	.001	.003	.007	.011	.016	.023	.030	.038	.048	.059
	Horizontal Throw	4-2-1	6-3-2	9-4-3	11-6-4	14-7-5	16-8-5	19-9-6	21-10-7	23-12-8	26-13-9
	Noise Criteria	<15	<15	<15	23	32	35	40	44	48	51

3 Slot	Airflow Rate	27	47	67	87	107	127	147	167	187	207
	Static Pressure	.001	.003	.005	.009	.013	.019	.025	.032	.040	.049
	Horizontal Throw	4-2-1	6-3-2	9-5-3	12-6-4	15-7-5	17-9-6	20-10-7	23-11-8	25-13-8	28-14-9
	Noise Criteria	<15	<15	<15	23	32	35	40	44	48	51

4 Slot	Airflow Rate	33	60	87	113	140	167	193	220	247	273
	Static Pressure	.001	.002	.005	.008	.012	.017	.023	.030	.038	.046
	Horizontal Throw	4-2-1	7-3-2	10-5-3	13-7-4	16-8-5	19-10-8	22-11-7	25-13-8	29-14-10	32-16-11
	Noise Criteria	<15	16	22	27	31	37	42	46	50	54

### NOTES

- Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
- Engineering Units:  
 Airflow rate = cfm/linear foot  
 Static Pressure = in. w.c.  
 Throw = ft at 50, 100, and 150 fpm terminal velocity
- Noise Criteria is based on 10 dB room absorption (Re: 10<sup>12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
- Throw data are based on a horizontal discharge in one direction only. For 2-way discharge pattern, the throw is determined from the published engineering data based on the number of slots and cfm/lin ft discharging in each direction.
- Throw data are for 4-foot active diffuser lengths. For other active lengths, throw may be determined by applying the following multiplication factors.
- Sound data are for 4-foot active diffuser lengths. For other lengths, add or deduct the following values to or from the reported NC level.

Diffuser Length (feet)	Multiplication Factor
1	0.50
2	0.85
3	0.95
4	1.00

Diffuser Length (feet)	NC Correction
1	-2
2	-2
3	-1
4	0

### Spiral Grille SV/SVH - CFM for sizes not listed

SIZE/Ak	Average Face Velocities									
	300	400	500	600	700	800	900	1000	1100	1200
10X3/.141	42	56	71	85	99	113	127	141	155	169
12X3/.169	51	68	85	101	118	135	152	169	186	203
10X4/.188	56	75	94	113	132	150	169	188	207	226
14X4/.263	79	105	132	158	184	210	237	263	289	316
10X6/.282	85	113	141	169	197	226	254	282	310	338
14X6/.393	118	157	197	236	275	314	354	393	432	472
16X6/.46	138	184	230	276	322	368	414	460	506	552
18X12/1.00	300	400	500	600	700	800	900	1000	1100	1200
30X8/1.11	333	444	555	666	777	888	999	1110	1221	1332
30X10/1.35	405	540	675	810	945	1080	1215	1350	1485	1620
36X12/2.00	600	800	1000	1200	1400	1600	1800	2000	2200	2400