



**USAIRE**

Performance Data

# MODEL 4004SP

## Model 4004SP

### Double Deflection Spiral Pipe Diffuser

Size	Area Ak	Inlet Velocity									
		PS	200	300	400	500	600	700	800	900	1000
		.010	.011	.020	.031	.044	.060	.078	.099	.122	
6x6	.25	CFM	50	75	125	125	150	175	200	225	250
	.20	NC	<15	<15	<15	<15	<15	<15	16	19	23
8x8	.44	CFM	89	133	178	222	267	311	356	400	444
	.35	NC	<15	<15	<15	<15	<15	16	19	22	25
10x6	.42	CFM	83	125	167	208	250	292	333	375	417
	.33	NC	<15	<15	<15	<15	<15	16	18	22	25
10x8	.56	CFM	111	167	222	278	333	389	444	500	556
	.43	NC	<15	<15	<15	<15	<15	17	20	23	26
10x10	.69	CFM	139	208	278	347	417	486	556	625	694
	.54	NC	<15	<15	<15	<15	16	18	21	24	27
12x6	.50	CFM	100	150	200	250	300	350	400	450	500
	.39	NC	<15	<15	<15	<15	<15	16	19	22	26
12x8	.67	CFM	133	200	267	333	400	467	533	600	667
	.52	NC	<15	<15	<15	<15	15	18	20	24	27
12x12	1.00	CFM	200	300	400	500	600	700	800	900	1000
	.78	NC	<15	<15	<15	15	17	19	22	25	29
14x6	.58	CFM	117	175	233	292	350	408	467	525	583
	.46	NC	<15	<15	<15	<15	<15	17	20	24	28
14x8	.78	CFM	156	233	311	389	467	544	622	700	778
	.61	NC	<15	<15	<15	<15	16	18	21	24	28
16x6	.67	CFM	133	200	267	333	400	467	533	600	667
	.52	NC	<15	<15	<15	<15	<15	17	21	24	28
16x8	.89	CFM	178	267	356	444	533	622	711	800	889
	.69	NC	<15	<15	<15	<15	17	19	22	25	28
18x6	.75	CFM	150	225	300	375	450	525	600	675	750
	.59	NC	<15	<15	<15	<15	<15	15	18	21	25
18x8	1.00	CFM	200	300	400	500	600	700	800	900	1000
	.78	NC	<15	<15	<15	15	17	19	22	25	29
20x6	.83	CFM	167	250	333	417	500	583	667	750	833
	.65	NC	<15	<15	<15	<15	<15	16	18	22	25
20x8	1.11	CFM	222	333	444	556	667	778	889	1000	1111
	.87	NC	<15	<15	<15	<15	<15	17	20	23	26
20x10	1.39	CFM	200	300	400	500	600	700	800	900	1000
	1.08	NC	<15	<15	<15	15	17	19	22	25	29
20x12	1.67	CFM	267	400	533	667	800	933	1067	1200	1333
	1.30	NC	<15	<15	<15	<15	15	18	20	24	27
20x16	2.22	CFM	444	667	889	1111	1333	1556	1778	2000	2222
	1.73	NC	<15	<15	<15	16	18	20	23	26	29
20x18	2.50	CFM	500	750	1000	1250	1500	1750	2000	2250	2500
	1.95	NC	<15	<15	<15	16	18	20	23	26	30
20x20	2.78	CFM	556	833	1111	1389	1667	1944	2222	2500	2778
	2.17	NC	<15	<15	<15	17	19	21	24	27	30
22x10	1.53	CFM	306	458	611	764	917	1069	1222	1375	1528
	1.19	NC	<15	<15	<15	<15	16	18	21	24	28
22x22	3.36	CFM	672	1008	1344	1681	2017	2353	2689	3025	3361
	2.62	NC	<15	<15	16	17	19	22	25	28	31
Throw			12	18	24	30	36	42	47	53	59

Size	Area Ak	Inlet Velocity									
		PS	200	300	400	500	600	700	800	900	1000
		.010	.011	.020	.031	.044	.060	.078	.099	.122	
24x6	1.00	CFM	200	300	400	500	600	700	800	900	1000
	.78	NC	<15	<15	<15	<15	<15	16	19	22	26
24x8	1.33	CFM	267	400	533	667	800	933	1067	1200	1333
	1.04	NC	<15	<15	<15	<15	15	18	20	24	27
24x10	1.67	CFM	333	500	667	833	1000	1167	1333	1500	1667
	1.30	NC	<15	<15	<15	<15	16	19	21	25	28
24x12	2.00	CFM	400	600	800	1000	1200	1400	1600	1800	2000
	1.56	NC	<15	<15	<15	15	17	20	22	25	29
24x16	2.67	CFM	533	800	1067	1333	1600	1867	2133	2400	2667
	2.08	NC	<15	<15	<15	16	18	21	24	27	30
24x18	3.00	CFM	600	900	1200	1500	1800	2100	2400	2700	3000
	2.34	NC	<15	<15	15	17	19	21	24	27	31
24x24	2.00	CFM	800	1200	1600	2000	2400	2800	3200	3600	4000
	3.12	NC	<15	15	16	18	20	23	25	28	32
26x12	2.17	CFM	433	650	867	1083	1300	1517	1733	1950	2167
	1.69	NC	<15	<15	<15	15	17	20	23	26	29
26x26	4.69	CFM	939	1408	1878	2347	2817	3286	3756	4225	4694
	3.66	NC	<15	16	17	19	21	23	26	29	33
28x12	2.33	CFM	467	700	933	1167	1400	1633	1867	2100	2333
	1.82	NC	<15	<15	<15	16	18	20	23	26	30
28x28	5.44	CFM	1089	1633	2178	2722	3267	3811	4356	4900	5444
	4.25	NC	16	17	18	19	21	24	27	30	33
30x6	1.25	CFM	250	375	500	625	750	875	1000	1125	1250
	.98	NC	<15	<15	<15	<15	15	17	20	23	27
30x8	1.67	CFM	333	500	667	833	1000	1167	1333	1500	1667
	1.30	NC	<15	<15	<15	<15	15	18	20	24	27
30x10	2.08	CFM	417	625	833	1042	1250	1458	1667	1875	2083
	1.63	NC	<15	<15	<15	15	17	20	22	26	29
30x12	2.50	CFM	500	750	1000	1250	1500	1750	2000	2250	2500
	1.95	NC	<15	<15	<15	16	18	20	23	26	30
36x8	2.00	CFM	400	600	800	1000	1200	1400	1600	1800	2000
	1.56	NC	<15	<15	<15	15	17	20	22	25	29
36x12	3.00	CFM	600	900	1200	1500	1800	2100	2400	2700	3000
	2.34	NC	<15	<15	15	17	19	21	24	27	31
36x24	6.00	CFM	1200	1800	2400	3000	3600	4200	4800	5400	6000
	4.68	NC	16	17	18	20	22	24	27	30	34
42x24	7.00	CFM	1400	2100	2800	3500	4200	4900	5600	6300	7000
	5.46	NC	17	18	19	21	23	25	28	31	34
48x12	4.00	CFM	800	1200	1600	2000	2400	2800	3200	3600	4000
	3.12	NC	<15	15	16	18	20	23	25	28	32
48x24	8.00	CFM	1600	2400	3200	4000	4800	5600	6400	7200	8000
	6.24	NC	17	18	19	21	23	26	28	31	35
48x36	12.00	CFM	2400	3600	4800	6000	7200	8400	9600	10800	12000
	9.36	NC	19	20	21	23	25	27	30	33	37
48x48	16.00	CFM	3200	4800	6400	8000	9600	11200	12800	14400	16000
	12.48	NC	20	21	22	24	26	29	31	34	38
Throw			12	18	24	30	36	42	47	53	59

**Notes**

All Units have been tested in accordance with ANSI/ASHRAE 70-2006. Data in table is derived from such testing  
 Ps - Static pressure required to obtain listed cfm, units of inches water gauge (in. wg)  
 NC- Calculated noise criteria using 10 dB per octave room attenuation (dimensionless).

For sizes not shown, refer to online tools **GRD Selection Program** performance calculator on Home Page