

PERFORMANCE DATA - SPIRAL DUCT GRILLES SINGLE AND DOUBLE DEFLECTION MODELS SD41-SD42

Size	Nk Vel		200	300	400	500	600	700	800	900
	Pt		.007	.015	.027	.042	.061	.083	.108	.137
10x03	Ac ft ²	CFM	29	43	58	72	87	101	116	130
	0.15	NC	-	-	-	-	14	19	23	26
	Throw		2-4-9	4-6-12	6-9-14	7-11-16	9-12-17	10-13-18	11-14-20	12-15-21
12x03	Ac ft ²	CFM	35	53	70	88	105	123	141	158
	0.18	NC	-	-	-	-	15	20	24	27
	Throw		2-4-10	4-7-13	6-10-15	8-12-17	10-13-19	11-14-20	13-15-22	13-16-23
10x04 14x03	Ac ft ²	CFM	42	63	84	104	125	146	167	188
	0.21	NC	-	-	-	-	16	20	24	28
	Throw		2-5-10	5-8-15	7-10-17	9-13-19	10-15-21	12-16-22	14-17-24	15-18-25
12x04 16x03	Ac ft ²	CFM	51	76	102	127	152	178	203	229
	0.26	NC	-	-	-	11	17	21	25	29
	Throw		2-5-11	5-9-16	8-11-19	10-14-21	11-16-23	13-17-25	15-19-26	16-20-28
18x03 14x04	Ac ft ²	CFM	54	81	108	135	162	189	216	243
	0.27	NC	-	-	-	11	17	22	26	29
	Throw		2-6-12	6-9-17	8-12-19	10-15-21	12-17-23	14-18-25	16-19-27	17-20-29
10x06 16x04 20x03	Ac ft ²	CFM	68	101	135	169	202	236	270	304
	0.34	NC	-	-	-	12	18	22	26	30
	Throw		3-6-13	6-10-18	9-13-21	11-17-24	13-18-26	15-20-28	17-21-30	18-23-32
12x06 18x04 24x03	Ac ft ²	CFM	82	123	164	205	246	287	328	369
	0.41	NC	-	-	-	13	19	23	27	31
	Throw		3-7-15	7-11-20	10-15-24	12-18-26	15-20-29	17-22-31	19-24-33	20-25-35
30x03	Ac ft ²	CFM	92	137	183	229	274	320	366	411
	0.46	NC	-	-	-	14	19	24	28	31
	Throw		3-7-15	7-12-22	10-15-25	13-19-28	15-22-30	18-23-33	20-25-35	22-26-37
14x06 20x04	Ac ft ²	CFM	97	145	193	241	290	338	386	435
	0.49	NC	-	-	-	14	19	24	28	31
	Throw		3-7-16	7-12-22	11-16-26	13-20-29	16-22-31	18-24-34	21-26-36	22-27-38
16x06 24x04	Ac ft ²	CFM	111	167	222	278	334	389	445	500
	0.56	NC	-	-	-	15	20	25	39	32
	Throw		4-8-17	8-13-24	11-17-27	14-21-31	17-24-34	20-26-36	22-27-39	24-29-41
18x06 36x03	Ac ft ²	CFM	126	188	251	314	377	440	503	566
	0.63	NC	-	-	-	15	20	25	29	31
	Throw		4-8-18	8-14-25	12-18-29	15-23-33	18-25-36	21-27-39	24-29-41	25-31-44
14x08	Ac ft ²	CFM	134	200	267	334	400	467	534	600
	0.67	NC	-	-	-	15	21	25	29	31
	Throw		4-9-19	9-14-26	12-19-30	16-23-34	19-26-37	22-28-40	25-30-42	26-32-45

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Size		Nk Vel	200	300	400	500	600	700	800	900
		Pt	.007	.015	.027	.042	.061	.083	.108	.137
16x08	Ac ft ²	CFM	154	230	307	384	461	538	614	691
20x06	0.77	NC	-	-	-	16	21	26	30	33
30x04	Throw		4-9-20	9-15-28	13-20-32	17-25-36	20-28-39	23-30-43	26-32-46	28-34-48
18x08	Ac ft ²	CFM	174	261	348	434	521	608	695	782
24x06	0.87	NC	-	-	-	16	22	26	30	34
36x04	Throw		4-10-21	10-16-30	14-21-34	18-27-38	21-30-42	25-32-45	28-34-48	30-36-51
20x08 42x04	Ac ft ²	CFM	194	291	388	485	582	678	775	872
	0.97	NC	-	-	11	17	21	27	31	34
	Throw		5-11-22	10-17-31	15-22-36	19-28-40	22-31-44	26-34-48	30-36-51	31-38-54
18x10 30x06	Ac ft ²	CFM	222	333	444	554	665	776	887	997
	1.11	NC	-	-	12	17	23	27	31	35
	Throw		5-11-24	11-18-34	16-24-39	20-30-43	24-34-47	28-36-51	32-39-55	34-41-58
20x10	Ac ft ²	CFM	247	371	494	618	742	865	989	1112
24x08	1.24	NC	-	-	12	18	23	28	32	35
48x04	Throw		5-12-25	12-19-35	17-25-41	21-32-46	25-35-50	30-38-54	33-41-58	35-43-61

PERFORMANCE NOTES FOR SERIES SD41-SD42

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

Velocity Velocity of air stream in Feet per Minute

Ps Static pressure = $P_t - P_v$ (inches of water column)

Throw Non-isothermal horizontal throw (supply air temperature 15°F colder than average room temperature); values are for 150 fpm, 100 fpm, and 50 fpm velocities

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10^{-12} watts minus a 10dB room attenuation in all octave bands

Ac Actual Core Free Area in square feet

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	Pt		.007	.015	.027	.042	.061	.083	.108	.137
18x12 36x06	Ac ft ²	CFM	270	405	539	674	809	943	1078	1212
	1.35	NC	-	-	12	18	24	28	32	36
	Throw		6-12-27	12-20-37	18-26-43	22-33-48	26-37-52	31-40-56	35-43-60	37-45-64
20x12 24x10 30x08	Ac ft ²	CFM	301	451	602	752	903	1053	1203	1354
	1.51	NC	-	-	12	19	24	29	33	36
	Throw		6-13-28	13-21-39	19-28-45	23-35-50	28-39-55	33-42-60	37-45-64	39-48-68
42x06	Ac ft ²	CFM	301	451	602	752	903	1053	1203	1354
	1.51	NC	-	-	12	19	24	29	33	36
	Throw		6-13-28	13-21-39	19-28-45	23-35-50	28-39-55	33-42-60	37-45-64	39-48-68
24x12 36x08 48x06	Ac ft ²	CFM	364	546	727	909	1090	1272	1453	1635
	1.82	NC	-	-	13	19	25	30	33	37
	Throw		6-14-31	14-23-43	20-31-50	26-38-55	31-43-61	36-46-66	40-50-70	43-53-74
30x10	Ac ft ²	CFM	376	564	752	939	1127	1315	1503	1680
	1.88	NC	-	-	13	20	25	30	34	37
	Throw		6-15-31	15-23-44	21-31-50	26-39-56	31-44-62	36-47-67	41-50-71	44-53-76
42x08	Ac ft ²	CFM	416	634	831	1039	1246	1454	1661	1869
	2.08	NC	-	-	13	20	25	30	34	38
	Throw		7-15-33	15-25-46	22-33-53	27-41-59	33-46-65	38-50-70	43-53-75	46-56-79
30x12 36x10	Ac ft ²	CFM	456	685	914	1142	1371	1600	1829	2057
	2.28	NC	-	-	14	20	26	30	34	38
	Throw		7-16-34	16-26-48	23-34-56	29-43-62	34-48-68	40-52-74	45-56-79	48-59-83
48x08	Ac ft ²	CFM	476	714	952	1190	1428	1666	1904	2142
	2.38	NC	-	-	14	21	26	31	35	38
	Throw		7-16-35	16-26-49	23-35-57	29-44-63	35-49-69	41-53-75	46-57-80	49-60-85
42x10	Ac ft ²	CFM	530	795	1060	1325	1590	1855	2120	2385
	2.65	NC	-	-	14	21	26	31	35	39
	Throw		8-17-37	17-28-52	25-37-60	31-46-67	37-52-73	43-56-79	49-60-85	52-63-90
36x12	Ac ft ²	CFM	550	826	1101	1377	1652	1928	2203	2479
	2.75	NC	-	-	15	21	27	31	35	39
	Throw		8-18-38	18-28-53	25-38-61	32-47-68	38-53-75	44-57-81	50-61-86	53-65-92

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	Pt		.007	.015	.027	.042	.061	.083	.108	.137
48x10	Ac ft ²	CFM	606	910	1214	1517	1821	2125	2429	2732
	3.03	NC	-	-	15	22	27	32	36	39
	Throw		8-19-40	19-30-55	26-40-64	33-50-72	40-55-78	46-60-85	52-64-91	55-68-96
42x12	Ac ft ²	CFM	646	968	1291	1613	1935	2257	2580	2902
	3.23	NC	-	-	15	22	27	32	36	39
	Throw		9-19-41	19-31-57	27-41-66	34-51-74	41-57-81	48-62-87	54-66-93	57-70-99
48x12	Ac ft ²	CFM	738	1107	1476	1845	2214	2583	2952	3321
	1.22	NC	-	-	16	22	38	32	36	40
	Throw		9-20-44	20-33-61	29-44-71	36-55-79	44-61-87	51-66-93	58-71-100	61-75-106

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