

PERFORMANCE DATA

Supply Grilles - Single and Double Deflection - MODELS SG41-SG42

Size		Nk Vel	200	300	400	500	600	700	800	1000
		Pt	.007	.015	.027	.042	.061	.083	.108	.169
06x04	Ac ft ²	CFM	24	36	48	60	72	84	96	120
	0.17	NC	-	-	-	-	-	-	11	18
	Throw		2-4-8	4-6-11	5-8-13	7-10-14	8-11-16	9-12-17	10-13-18	12-14-20
06x06	Ac ft ²	CFM	38	57	76	95	114	133	152	190
	0.25	NC	-	-	-	-	-	10	13	20
	Throw		4-8-17	7-12-21	10-15-24	12-17-26	14-20-28	15-21-30	17-23-32	19-24-34
08x08 10x06 12x05	Ac ft ²	CFM	73	110	146	183	219	256	292	365
	0.42	NC	-	-	-	-	11	13	16	22
	Throw		3-6-14	6-10-19	9-14-22	11-17-25	14-19-27	16-21-29	18-22-31	20-25-35
12x06	Ac ft ²	CFM	82	123	164	205	246	287	328	410
	0.50	NC	-	-	-	11	11	13	16	23
	Throw		3-7-15	7-11-20	10-15-24	12-18-26	15-20-29	17-22-31	19-24-33	21-26-37
10x08 14x6	Ac ft ²	CFM	93	140	186	233	279	326	372	465
	0.56	NC	-	-	-	10	12	14	17	23
	Throw		3-7-16	7-12-22	10-16-25	13-19-28	16-22-31	18-23-33	20-25-35	23-28-40
10x10 12x08 16x06	Ac ft ²	CFM	118	172	238	297	357	414	478	592
	0.69	NC	-	-	-	11	13	15	18	24
	Throw		4-8-18	8-13-25	12-18-28	15-22-32	18-25-35	20-27-37	23-28-40	26-32-45
14x08 18x06	Ac ft ²	CFM	134	201	267	335	394	468	534	661
	0.67	NC	-	-	-	11	13	15	18	25
	Throw		4-9-19	9-14-26	13-20-30	16-23-34	19-26-37	23-29-41	25-30-42	27-34-47
12x10 20x06	Ac ft ²	CFM	145	218	290	363	435	509	582	729
	0.83	NC	-	-	10	11	13	16	18	25
	Throw		4-9-19	9-15-27	13-19-31	16-24-35	19-27-38	23-29-41	26-31-44	29-35-49
16x08 22x06	Ac ft ²	CFM	153	230	306	383	459	536	612	765
	0.89	NC	-	-	10	12	14	16	19	25
	Throw		4-9-20	9-15-28	13-20-32	17-25-36	20-28-39	23-30-43	26-32-46	29-36-51
14x10 28x05	Ac ft ²	CFM	170	255	340	425	510	595	680	850
	0.85	NC	-	-	10	12	14	16	19	26
	Throw		4-10-21	10-16-29	14-21-34	18-26-38	21-29-42	25-32-45	28-34-48	31-38-54
12x12 24x06 18x08	Ac ft ²	CFM	176	263	351	439	527	615	701	878
	0.88	NC	-	-	10	12	14	16	19	26
	Throw		8-19-38	14-25-46	21-31-51	25-37-56	29-43-60	33-46-64	37-48-68	41-51-72
30x06 18x10	Ac ft ²	CFM	213	320	426	533	640	746	853	1066
	1.07	NC	-	10	11	13	15	17	20	27
	Throw		5-11-24	11-18-33	16-24-38	20-29-42	24-33-46	27-36-50	31-38-54	35-42-60

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		Pt	.007	.015	.027	.042	.061	.083	.108	.169
14x14	Ac ft ²	CFM	244	366	488	610	732	853	975	1219
	1.22	NC	-	10	12	13	15	18	21	27
	Throw		5-12-25	12-19-35	17-25-41	21-31-45	25-35-50	29-38-54	33-41-57	37-45-64
36x06 18x12	Ac ft ²	CFM	257	366	514	643	771	900	1028	1285
	1.29	NC	10	11	12	14	16	18	21	28
	Throw		5-12-26	12-19-36	17-26-42	22-32-47	26-36-51	30-39-55	34-42-59	38-47-66
22x10	Ac ft ²	CFM	273	410	546	683	819	956	1092	1385
	1.37	NC	10	11	12	14	16	18	21	28
	Throw		6-12-27	12-20-37	18-27-43	22-33-48	27-37-53	31-40-57	35-43-61	39-48-68
30x08 24x10	Ac ft ²	CFM	295	442	589	736	884	1031	1178	1472
	1.48	NC	10	11	13	14	16	19	21	28
	Throw		6-13-28	13-21-39	18-28-45	23-35-50	28-39-55	32-42-59	36-45-63	41-50-71
16x16	Ac ft ²	CFM	323	485	646	808	969	1131	1292	1615
	1.62	NC	11	12	13	15	17	19	22	28
	Throw		6-14-29	14-22-40	19-29-47	24-36-52	29-40-57	34-44-62	38-47-66	43-52-74

PERFORMANCE NOTES FOR SERIES SG41-SG42

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

DEFINITION OF UNITS

CFM Air volume is cubic feet per minute

Nk Vel Neck Velocity is the airstream velocity in the duct just before it reaches the supply outlet; measured in feet per minute

fpm Velocity of air stream in Feet per Minute

Throw Throw distance in feet are for terminal velocities of 150 fpm, 100 fpm and 50 fpm respectively

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

Pt Total pressures in inches of water

Ac Actual Core Free Area in square feet

Correction Factors for Deflection Angles			
Degrees	Pressure	Throw	NC
0	1.00	1.00	0
22.5	1.21	0.80	+4
45	1.79	0.50	+10
Correction Factors for Deflection Angles with OBD Dampers			
Degrees	Pressure	Throw	NC
0	1.18	1.00	+7
22.5	1.31	0.80	+9
45	1.93	0.50	+13

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Size			Nk Vel	200	300	400	500	600	700	800	1000
			Pt	.007	.015	.027	.042	.061	.083	.108	.169
24x12	Ac ft ²	CFM		364	546	727	909	1090	1272	1453	1816
36x08	1.82	NC		11	12	13	15	17	20	22	29
48x06	Throw			6-13-30	14-23-43	20-31-50	26-38-55	31-43-61	36-46-66	40-50-70	45-55-78
18x18	Ac ft ²	CFM		414	621	87	1034	1240	1447	1653	2066
	2.07	NC		12	13	14	16	18	20	23	29
	Throw			7-15-33	15-25-46	22-33-53	27-41-59	33-46-65	38-49-70	43-53-75	48-59-84
30x12 36x10	Ac ft ²	CFM		456	685	914	1142	1371	1600	1829	2386
	2.28	NC		12	13	14	16	18	20	23	30
	Throw			7-16-34	16-26-48	23-34-56	29-43-62	34-48-68	40-52-74	45-56-79	51-62-88
20x20	Ac ft ²	CFM		515	772	1030	1287	1545	1802	2059	2574
	2.59	NC		13	14	15	17	19	21	24	30
	Throw			8-17-37	17-27-51	24-37-59	30-46-66	37-51-72	43-55-78	48-59-83	54-66-93
24x18 36x12	Ac ft ²	CFM		550	826	1101	1377	1653	1928	2204	2755
	2.75	NC		13	14	15	17	19	21	24	31
	Throw			8-18-38	18-28-53	25-38-61	32-47-68	38-53-75	44-57-81	50-61-86	56-68-96
22x22	Ac ft ²	CFM		626	940	1254	1567	1881	2195	2509	3136
24x20	3.13	NC		13	14	16	17	19	22	25	31
48x10	Throw			8-19-40	19-30-56	27-40-65	34-50-73	40-56-80	47-61-86	53-65-92	59-73-103
24x24	Ac ft ²	CFM		750	116	1501	1877	2252	2628	3003	3754
36x16	3.75	NC		14	15	16	18	20	23	25	32
48x12	Throw			9-21-44	21-33-62	29-44-71	37-55-80	44-62-87	52-67-94	58-71-101	65-80-113
30x24 36x20	Ac ft ²	CFM		946	1297	1848	1999	2350	2701	3052	3754
	4.73	NC		15	16	17	19	21	23	26	33
	Throw			10-23-50	19-34-66	29-43-75	35-52-82	41-62-89	47-68-96	53-72-102	65-80-113
28x28	Ac ft ²	CFM		1030	1546	2061	2577	3093	3608	4124	5155
	5.15	NC		16	17	18	19	21	24	27	33
	Throw			11-24-52	24-39-72	34-52-83	43-65-93	52-72-102	60-78-110	68-83-118	76-93-132
36x24 48x18	Ac ft ²	CFM		1140	1709	2278	2846	3415	3984	4553	5690
	5.70	NC		16	17	18	20	22	24	27	34
	Throw			11-25-54	25-41-76	36-54-88	45-68-98	54-76-107	63-82-116	72-88-124	80-98-139
30x30	Ac ft ²	CFM		1190	1784	2378	2971	3565	4159	4753	5940
	5.95	NC		16	17	18	20	22	24	27	34
	Throw			12-26-56	26-42-78	37-56-90	46-69-100	56-78-110	65-84-119	73-90-127	82-100-142

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		Pt	.007	.015	.027	.042	.061	.083	.108	.169
32x30	Ac ft ²	CFM	1270	1905	2540	3175	3810	4445	5080	6350
	6.35	NC	17	18	19	21	23	25	28	34
	Throw		12-27-57	27-43-80	38-57-93	48-72-104	57-80-113	67-87-123	76-93-131	85-104-147
36x28 42x24	Ac ft ²	CFM	1330	1996	2663	3329	3995	4661	5328	6660
	6.65	NC	17	18	19	21	23	25	28	34
	Throw		12-27-59	27-44-82	39-59-95	49-73-106	59-82-116	69-89-126	77-95-134	87-106-150
36x30	Ac ft ²	CFM	1430	2146	2863	3579	4295	5011	5728	7160
	7.15	NC	17	18	19	21	23	25	28	35
	Throw		13-28-61	28-46-85	41-61-98	51-76-110	61-85-120	71-92-130	80-98-139	90-110-156
36x32 48x24	Ac ft ²	CFM	1525	2288	3051	3814	4578	5341	6104	7630
	7.63	NC	17	18	19	21	23	26	28	35
	Throw		13-29-63	29-47-88	42-63-102	52-79-114	63-88-124	73-95-134	83-102-144	93-114-161
36x36	Ac ft ²	CFM	1730	2593	3455	4318	5180	6043	6905	8630
	8.65	NC	18	19	20	22	24	26	29	35
	Throw		14-31-67	31-50-94	45-67-108	56-84-121	67-94-132	78-101-143	88-108-153	99-121-171
38x38	Ac ft ²	CFM	1930	2894	3858	4821	5785	6749	7713	9640
	9.65	NC	18	19	20	22	24	27	29	36
	Throw		15-33-71	33-53-99	47-71-114	59-88-128	71-99-140	83-107-151	93-114-161	104-128-181

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Ac Actual Core Free Area in square feet

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Degrees	Pressure	Throw	NC
0	1.00	1.00	0
22.5	1.21	0.80	+4
45	1.79	0.50	+10
Correction Factors for Deflection Angles with OBD Dampers			
Degrees	Pressure	Throw	NC
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45	1.93	0.50	+13

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Size		Nk Vel	100	200	300	400	500	600	700	800
		Pt	.002	.007	.015	.027	.042	.061	.083	.108
42x36	Ac ft ²	CFM	1010	2020	3030	4040	5050	6060	7070	8080
	10.10	NC	15	18	19	21	22	24	27	29
	Throw		4-8-34	15-34-72	34-54-101	48-72-117	60-91-131	72-101-143	85-109-155	95-117-165
40x40	Ac ft ²	CFM	1070	2140	3210	4280	5350	6420	7490	8560
	10.70	NC	15	19	20	21	23	25	27	30
	Throw		4-9-35	15-35-75	35-56-104	50-75-120	62-93-134	75-104-147	87-113-159	98-120-170
48x36	Ac ft ²	CFM	1160	2316	3473	4629	5785	6941	8098	9254
	11.60	NC	15	19	20	21	23	25	27	30
	Throw		4-9-36	16-36-78	36-58-108	52-78-125	65-97-140	78-108-153	90-117-165	102-125-177
42x42	Ac ft ²	CFM	1180	2363	3545	4728	5910	7093	8275	9458
	11.80	NC	15	19	20	21	23	25	27	30
	Throw		4-9-37	16-37-78	37-59-109	52-78-126	65-98-141	78-109-155	91-118-167	103-126-179
44x44	Ac ft ²	CFM	1300	2599	3898	5196	6495	7794	9093	10391
	13.00	NC	16	20	21	22	24	26	28	31
	Throw		4-10-38	17-38-82	38-62-115	55-82-133	68-103-148	82-115-162	96-124-175	108-133-187
48x42	Ac ft ²	CFM	1360	2713	4065	5418	6770	8123	9475	10828
	13.60	NC	16	20	21	22	24	26	28	31
	Throw		4-10-40	17-39-84	39-63-117	56-84-135	70-105-151	84-117-166	98-127-179	110-135-191
46x46	Ac ft ²	CFM	1420	2843	4265	5688	7110	8533	9955	11378
	14.20	NC	16	20	21	22	24	26	28	31
	Throw		4-10-40	18-40-86	40-64-120	57-86-139	72-107-155	86-120-170	100-130-183	113-139-196
48x48	Ac ft ²	CFM	1550	3101	4653	6204	7755	9306	10858	12409
	15.50	NC	17	20	21	22	24	26	29	32
	Throw		5-10-42	19-42-90	42-67-125	60-90-145	75-112-162	90-125-177	105-135-192	118-145-205

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45	1.79	0.50	+10
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