

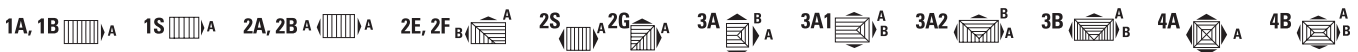
PERFORMANCE DATA

SMD/AMD

Neck Velocity (fpm)		300	400	500	600	700	800	900	
Velocity Pressure (in. w.g.)		0.006	0.01	0.016	0.022	0.031	0.04	0.05	
Total Pressure (in. w.g.)		0.036	0.065	0.099	0.144	0.196	0.256	0.324	
Duct Size	Flow Rate (cfm)	75	100	125	150	175	200	225	
	Sound (NC)	-	-	17	23	27	31	36	
6 in. x 6 in.		A	B	A	B	A	B	A	B
	4A	cfm/Side	19	25	31	38	44	50	56
		Throw (ft)	4-6-12	5-8-15	7-10-16	8-12-18	9-14-19	11-15-21	12-16-22
	3A	cfm/Side	19	25	31	38	44	50	56
		Throw (ft)	4-6-12	5-8-15	7-10-16	8-12-18	9-14-19	11-15-21	12-16-22
0.25 ft²	2S, 2G	cfm/Side	38	50	63	75	88	100	113
		Throw (ft)	6-8-15	7-11-18	9-14-20	11-15-22	13-17-24	15-18-25	15-19-27
	1S	cfm/Side	75	100	125	150	175	200	225
		Throw (ft)	8-12-19	11-15-22	13-17-24	15-19-27	17-20-29	18-22-31	19-23-33
		Sound (NC)	169	225	282	338	394	450	507
9 in. x 9 in.		A	B	A	B	A	B	A	B
	4A	cfm/Side	42	56	71	85	99	113	127
		Throw (ft)	6-9-16	8-12-18	10-15-21	12-16-23	14-17-24	15-18-26	16-20-28
	3A	cfm/Side	42	56	71	85	99	113	127
		Throw (ft)	6-9-16	8-12-18	10-15-21	12-16-23	14-17-24	15-18-26	16-20-28
0.56 ft²	2S, 2G	cfm/Side	85	113	141	169	197	225	254
		Throw (ft)	8-13-19	11-16-22	14-18-25	16-19-28	17-21-30	18-22-32	19-24-34
	1S	cfm/Side	169	225	282	338	394	450	507
		Throw (ft)	12-17-24	16-19-27	18-22-31	19-24-34	21-26-36	22-27-39	21-29-41
		Sound (NC)	300	400	500	600	700	800	900
12 in. x 12 in.		A	B	A	B	A	B	A	B
	4A	cfm/Side	75	100	125	150	175	200	225
		Throw (ft)	8-12-19	11-15-22	13-17-24	15-19-27	17-20-29	18-22-31	19-23-33
	3A	cfm/Side	75	100	125	150	175	200	225
		Throw (ft)	8-12-19	11-15-22	13-17-24	15-19-27	17-20-29	18-22-31	19-23-33
1.00 ft²	2S, 2G	cfm/Side	150	200	250	300	350	400	450
		Throw (ft)	11-16-23	15-19-26	17-21-30	19-23-32	20-25-35	22-26-37	23-28-40
	1S	cfm/Side	300	400	500	600	700	800	900
		Throw (ft)	16-20-28	19-23-32	21-26-36	23-28-40	25-30-43	26-32-46	28-34-48
		Sound (NC)	468	625	781	938	1094	1250	1406
15 in. x 15 in.		A	B	A	B	A	B	A	B
	4A	cfm/Side	117	156	195	234	273	313	352
		Throw (ft)	10-15-21	13-17-25	16-20-28	17-21-30	19-23-33	20-25-35	21-26-37
	3A	cfm/Side	117	156	195	234	273	313	352
		Throw (ft)	10-15-21	13-17-25	16-20-28	17-21-30	19-23-33	20-25-35	21-26-37
1.56 ft²	2S, 2G	cfm/Side	234	313	391	469	547	625	703
		Throw (ft)	14-18-26	17-21-30	19-24-34	21-26-37	23-28-40	25-30-43	26-32-45
	1S	cfm/Side	468	625	781	938	1094	1250	1406
		Throw (ft)	18-22-32	21-26-37	24-29-41	26-32-45	28-34-48	30-37-52	32-39-55
		Sound (NC)	675	900	1125	1350	1575	1800	2025
18 in. x 18 in.		A	B	A	B	A	B	A	B
	4A	cfm/Side	169	225	281	338	394	450	506
		Throw (ft)	12-17-24	16-19-27	18-22-31	19-24-34	21-26-36	22-27-39	24-29-41
	3A	cfm/Side	169	225	281	338	394	450	506
		Throw (ft)	12-17-24	16-19-27	18-22-31	19-24-34	21-26-36	22-27-39	24-29-41
2.25 ft²	2S, 2G	cfm/Side	338	450	563	675	788	900	1013
		Throw (ft)	17-20-29	19-24-33	22-26-37	24-29-41	25-31-44	27-33-47	29-35-50
	1S	cfm/Side	675	900	1125	1350	1575	1800	2025
		Throw (ft)	20-25-35	23-29-41	26-32-45	29-35-50	31-38-54	33-41-58	35-43-61
		Sound (NC)	919	1225	1531	1838	2144	2450	2756
21 in. x 21 in.		A	B	A	B	A	B	A	B
	4A	cfm/Side	230	306	383	459	536	613	689
		Throw (ft)	14-18-26	17-21-30	19-24-33	21-26-37	23-28-40	24-30-42	26-32-45
	3A	cfm/Side	230	306	383	459	536	613	689
		Throw (ft)	14-18-26	17-21-30	19-24-33	21-26-37	23-28-40	24-30-42	26-32-45
3.06 ft²	2S, 2G	cfm/Side	459	613	766	919	1072	1225	1378
		Throw (ft)	18-22-32	21-26-36	24-29-41	26-32-45	28-34-48	30-36-52	32-39-55
	1S	cfm/Side	918	1225	1531	1837	2143	2450	2756
		Throw (ft)	22-27-38	26-31-44	29-35-50	31-38-54	34-42-59	36-44-63	38-47-67
		Sound (NC)	-	-	30	36	40	44	48

For Performance Notes and Return Factors, see end of section.

Core Style Legend



PERFORMANCE DATA

SMD/AMD

Neck Velocity (fpm)		300	400	500	600	700	800	900
Velocity Pressure (in. w.g.)		0.006	0.01	0.016	0.022	0.031	0.04	0.05
Total Pressure (in. w.g.)		0.036	0.065	0.099	0.144	0.196	0.256	0.324
Duct Size 24 in. x 24 in.	Flow Rate (cfm)	1200	1600	2000	2400	2800	3200	3600
	Sound (NC)	15	24	31	37	41	45	49
Duct Area 4.00 ft ²	4A cfm/Side Throw (ft)	300 16-20-28	400 19-23-32	500 21-26-36	600 23-28-40	700 25-30-43	800 26-32-46	900 28-34-48
	3A cfm/Side Throw (ft)	300 450 16-20-28 18-22-31	400 600 19-23-32 21-26-36	500 750 21-26-36 23-29-41	600 900 23-28-40 26-31-44	700 1050 25-30-43 28-34-48	800 1200 26-32-46 30-36-51	900 1350 28-34-48 31-38-54
	2S, 2G cfm/Side Throw (ft)	600 20-24-34	800 23-28-39	1000 25-31-44	1200 28-34-48	1400 30-37-52	1600 32-39-56	1800 34-42-59
	1S cfm/Side Throw (ft)	1200 24-29-41	1600 28-34-48	2000 31-38-54	2400 34-41-59	2800 37-45-63	3200 39-48-68	3600 41-51-72
	Flow Rate (cfm)	112	150	187	225	263	300	337
Duct Size 9 in. x 6 in.	Sound (NC)	-	-	20	26	30	34	38
Duct Area 0.38 ft ²	4B cfm/Side Throw (ft)	37 18 6-8-15 4-6-12	50 25 7-11-18 5-8-15	62 31 9-14-20 7-10-16	75 37 11-15-22 8-12-18	87 44 13-17-24 9-14-20	100 50 15-18-25 11-15-21	112 56 15-19-27 12-16-22
	3A2 cfm/Side Throw (ft)	35 42 5-8-15 6-9-16	47 55 7-11-18 8-12-18	58 70 9-13-20 10-15-21	70 84 11-15-21 12-16-22	82 98 13-16-23 14-17-24	94 112 14-18-25 15-18-26	105 126 15-19-26 16-19-28
	2A, 2B cfm/Side Throw (ft)	56 7-10-17	75 9-14-20	93 11-16-22	112 14-17-24	131 15-19-26	150 16-20-28	168 17-21-30
	2E, 2F cfm/Side Throw (ft)	75 37 8-12-19 6-8-15	100 50 11-15-22 7-11-18	125 62 13-17-24 9-14-20	150 75 15-19-27 11-15-22	175 87 17-20-29 13-17-24	200 100 18-22-31 15-18-25	225 112 19-23-33 15-19-27
	1A, 1B cfm/Side Throw (ft)	112 10-14-21	150 13-17-24	187 16-19-27	225 17-21-30	263 19-23-32	300 20-24-35	337 21-26-37
Duct Size 12 in. x 6 in.	Flow Rate (cfm)	150	200	250	300	350	400	450
	Sound (NC)	-	-	21	27	31	35	39
Duct Area 0.5 ft ²	4B cfm/Side Throw (ft)	56 18 7-10-17 4-6-12	75 25 9-14-20 5-8-15	94 31 12-16-22 7-10-16	113 37 14-17-25 8-12-18	131 44 15-19-27 9-14-20	150 50 16-20-28 11-15-21	169 56 17-21-30 12-16-22
	3A1 cfm/Side Throw (ft)	66 18 7-11-18 4-6-12	87 25 10-15-21 5-8-15	109 31 12-16-23 7-10-16	131 37 15-18-26 8-12-18	153 44 16-20-28 9-14-20	175 50 17-21-30 11-15-21	197 56 18-22-31 12-16-22
	3B cfm/Side Throw (ft)	75 37 8-12-19 6-8-15	100 50 11-15-22 7-11-18	126 62 13-17-24 9-14-20	150 75 15-19-27 11-15-22	176 67 17-20-29 10-15-21	200 100 18-22-31 15-18-25	226 112 19-23-33 15-19-27
	2A, 2B cfm/Side Throw (ft)	75 8-12-19	100 11-15-22	125 13-17-24	150 15-19-27	175 17-20-29	200 18-22-31	225 19-23-33
	2E, 2F cfm/Side Throw (ft)	112 37 10-14-21 6-8-15	160 50 14-18-25 7-11-18	188 62 16-19-27 9-14-20	225 75 17-21-30 11-15-22	263 87 19-23-32 13-17-24	300 100 20-24-35 15-18-25	338 112 21-26-37 15-19-27
1A, 1B cfm/Side Throw (ft)	150 11-16-23	200 15-19-26	250 17-21-30	300 19-23-32	350 20-25-35	400 22-26-37	450 23-28-40	
Duct Size 15 in. x 6 in.	Flow Rate (cfm)	188	250	312	375	438	500	563
	Sound (NC)	-	15	22	28	32	36	40
Duct Area 0.63 ft ²	4B cfm/Side Throw (ft)	75 18 8-12-19 4-6-11	100 25 11-15-22 5-8-15	125 31 13-17-24 7-10-16	150 37 15-19-27 8-12-18	175 44 17-20-29 9-14-19	200 50 18-22-31 11-15-21	225 56 19-23-33 12-15-22
	3A1 cfm/Side Throw (ft)	84 18 8-13-19 4-6-11	112 25 11-16-22 5-8-15	140 31 14-18-25 7-10-16	169 37 16-19-28 8-12-18	197 44 17-21-30 9-14-19	225 50 18-22-32 11-15-21	253 56 19-24-34 12-15-22
	2A, 2B cfm/Side Throw (ft)	94 9-13-20	125 12-16-23	156 15-18-26	187 16-20-28	219 18-22-31	250 19-23-33	281 20-25-35
	2E, 2F cfm/Side Throw (ft)	150 37 11-16-23 6-8-15	200 50 15-19-26 7-11-18	250 62 17-21-30 9-14-20	300 75 19-23-32 11-15-22	350 87 20-25-35 13-17-24	400 100 22-26-37 15-18-25	450 112 23-28-40 15-19-27
	1A, 1B cfm/Side Throw (ft)	188 13-17-24	250 16-20-28	312 18-22-32	375 20-24-35	438 22-26-37	500 23-28-40	563 24-30-42
Duct Size 18 in. x 6 in.	Flow Rate (cfm)	225	300	375	450	525	600	675
	Sound (NC)	-	16	23	29	33	37	41
Duct Area 0.75 ft ²	4B cfm/Side Throw (ft)	94 18 9-13-20 4-6-12	125 25 12-16-23 5-8-15	156 31 15-18-26 7-10-16	188 37 16-20-28 8-12-18	218 44 18-22-31 9-14-20	250 50 19-23-33 20-25-35	281 56 12-16-22
	3A1 cfm/Side Throw (ft)	103 18 9-14-21 4-6-12	137 25 12-17-24 5-8-15	172 31 15-19-27 7-10-16	206 37 17-21-29 8-12-18	240 44 18-22-31 9-14-20	275 50 19-24-34 11-15-21	309 56 21-25-36 12-16-22
	2A, 2B cfm/Side Throw (ft)	112 10-14-21	150 13-17-24	187 16-19-27	225 17-21-30	262 19-23-32	300 20-24-35	337 21-26-37
	2E, 2F cfm/Side Throw (ft)	187 37 12-17-24 6-8-15	250 50 16-20-28 8-11-18	313 62 18-22-32 9-14-20	375 75 20-24-35 11-16-22	438 87 22-26-37 13-17-24	500 100 23-28-40 15-18-25	563 112 24-30-42 16-19-27
	1A, 1B cfm/Side Throw (ft)	225 14-18-26	300 17-21-30	375 19-24-33	450 21-26-36	525 23-28-39	600 24-30-42	675 26-32-45

For Performance Notes and Return Factors, see end of section.

Core Style Legend



PERFORMANCE DATA

SMD/AMD

Neck Velocity (fpm)		300		400		500		600		700		800		900	
Velocity Pressure (in. w.g.)		0.006		0.01		0.016		0.022		0.031		0.04		0.05	
Total Pressure (in. w.g.)		0.036		0.065		0.099		0.144		0.196		0.256		0.324	
Duct Size	Flow Rate (cfm)	262		350		437		525		612		700		787	
21 in. x 6 in.	Sound (NC)	-		16		23		29		33		37		41	
Duct Area 0.88 ft ²	4B cfm/Side Throw (ft)	112	18	150	25	187	31	225	37	262	44	300	50	337	56
	10-14-21	4-6-11	13-17-24	5-8-15	16-19-27	7-10-16	17-21-30	8-12-18	19-23-32	9-14-20	20-24-34	11-15-21	21-26-37	12-16-22	
	3A1 cfm/Side Throw (ft)	122	18	162	25	203	31	244	37	284	44	325	50	365	56
	10-15-22	4-6-11	13-18-25	5-8-15	16-20-28	7-10-16	18-22-31	8-12-18	19-23-33	9-14-20	20-25-35	11-15-21	22-26-37	12-16-22	
	2A, 2B cfm/Side Throw (ft)	131		175		218		262		306		350		393	
	10-16-22		14-18-25		16-20-28		18-22-31		19-24-34		21-25-36		22-27-38		
2E, 2F cfm/Side Throw (ft)	225	37	300	50	375	62	450	75	525	87	600	100	675	112	
14-18-26	6-8-15	17-21-30	8-11-18	19-23-33	9-14-20	21-26-36	11-16-22	23-28-39	13-17-24	24-30-42	15-18-25	26-32-45	15-19-27		
1A, 1B cfm/Side Throw (ft)	262		350		437		525		612		700		787		
15-19-27		18-22-31		20-25-35		22-27-38		24-29-41		25-31-44		27-33-47			
Duct Size	Flow Rate (cfm)	300		400		500		600		700		800		900	
24 in. x 6 in.	Sound (NC)	-		17		24		30		34		38		42	
Duct Area 1.00 ft ²	4B cfm/Side Throw (ft)	131	18	175	25	219	31	263	37	306	44	350	50	394	56
	10-16-22	4-6-12	14-18-25	5-8-15	16-20-28	7-10-16	18-22-31	8-12-18	19-24-34	9-14-20	21-25-36	11-15-21	22-27-38	12-16-22	
	3A1 cfm/Side Throw (ft)	141	18	187	25	234	31	281	37	328	44	375	50	422	56
	11-16-23	4-6-12	14-18-26	5-8-15	17-21-29	7-10-16	18-22-32	8-12-18	20-24-34	9-14-20	21-26-37	11-15-21	23-28-39	12-16-22	
	2A, 2B cfm/Side Throw (ft)	150		200		250		300		350		400		450	
	11-16-23		15-19-26		17-21-30		19-23-32		20-25-35		22-26-37		23-28-40		
2E, 2F cfm/Side Throw (ft)	260	37	350	50	438	62	525	75	613	87	700	100	788	112	
15-19-27	6-8-15	18-22-31	8-11-18	20-25-35	9-14-20	22-27-38	11-16-22	24-29-41	13-17-24	25-31-44	15-18-25	27-33-47	16-19-27		
1A, 1B cfm/Side Throw (ft)	300		400		500		600		700		800		900		
16-20-28		19-23-32		21-26-36		23-28-40		25-30-43		26-32-46		28-34-48			
Duct Size	Flow Rate (cfm)	225		300		375		450		525		600		675	
12 in. x 9 in.	Sound (NC)	-		16		23		29		33		37		41	
Duct Area 0.75 ft ²	4B cfm/Side Throw (ft)	70	42	94	56	117	70	141	84	164	98	188	112	211	126
	8-11-18	6-9-16	10-15-21	8-12-18	13-17-24	10-15-21	15-19-26	12-16-22	16-20-28	14-17-24	17-21-30	15-18-26	19-23-32	16-19-28	
	3A1 cfm/Side Throw (ft)	91	42	121	56	152	70	183	84	213	98	244	112	274	126
	9-13-20	6-9-16	12-16-23	8-12-18	15-18-26	10-15-21	16-20-28	12-16-22	18-22-31	14-17-24	19-23-33	15-18-26	20-24-35	16-19-28	
	3A2 cfm/Side Throw (ft)	75	75	100	100	125	125	150	150	175	175	200	200	225	225
	8-12-19	8-12-19	11-15-22	11-15-22	13-17-24	13-17-24	15-19-27	15-19-27	17-20-29	17-20-29	18-22-31	18-22-31	19-23-33	19-23-33	
2A, 2B cfm/Side Throw (ft)	112		150		187		225		262		300		337		
10-14-21		13-17-24		16-19-27		17-21-30		19-23-32		20-24-35		21-26-37			
2E, 2F cfm/Side Throw (ft)	141	84	188	112	234	141	281	169	328	197	375	225	422	253	
11-16-23	8-13-19	14-18-26	11-16-22	17-21-29	14-18-25	18-22-32	16-20-28	20-24-34	17-21-30	21-26-37	18-23-32	22-28-39	20-24-34		
1A, 1B cfm/Side Throw (ft)	225		300		375		450		525		600		675		
14-18-26		17-21-30		19-24-33		21-26-36		23-28-39		24-30-42		26-32-45			
Duct Size	Flow Rate (cfm)	281		375		470		563		656		750		845	
15 in. x 9 in.	Sound (NC)	-		17		24		30		34		38		42	
Duct Area 0.94 ft ²	4B cfm/Side Throw (ft)	98	42	131	56	165	70	198	84	230	98	263	112	296	126
	9-14-20	6-9-16	12-17-23	8-12-18	15-19-26	10-15-21	17-20-29	12-16-23	18-22-31	14-17-24	19-24-33	15-18-26	20-25-35	16-20-28	
	3A1 cfm/Side Throw (ft)	120	42	159	56	200	70	240	84	279	98	319	112	359	126
	10-15-21	6-9-16	13-17-25	8-12-18	16-20-28	10-15-21	18-21-30	12-16-23	19-23-33	14-17-24	20-25-35	15-18-26	21-26-37	16-20-28	
	3A2 cfm/Side Throw (ft)	82	117	110	155	137	196	165	233	192	272	219	312	247	351
	8-12-19	10-15-21	11-16-22	13-17-25	14-18-25	16-20-28	16-19-27	17-21-30	17-21-30	19-23-33	18-22-32	20-25-35	19-24-34	21-26-37	
2A, 2B cfm/Side Throw (ft)	140		187		235		281		328		375		422		
11-16-22		14-18-26		17-21-29		18-23-32		20-24-34		21-26-37		23-28-39			
2E, 2F cfm/Side Throw (ft)	197	84	263	112	329	141	394	169	459	197	525	225	592	253	
13-18-25	8-13-19	17-20-29	11-16-22	19-23-32	14-18-25	20-25-35	16-19-28	22-27-38	17-21-30	23-29-40	18-22-32	25-30-43	19-24-34		
1A, 1B cfm/Side Throw (ft)	281		375		470		563		656		750		845		
15-19-27		18-22-32		20-25-35		22-27-39		24-30-42		26-32-45		27-34-48			
Duct Size	Flow Rate (cfm)	337		450		562		675		787		900		1012	
18 in. x 9 in.	Sound (NC)	-		18		25		31		35		39		43	
Duct Area 1.13 ft ²	4B cfm/Side Throw (ft)	126	42	169	56	211	70	254	84	296	98	338	112	380	126
	10-15-22	6-9-16	14-18-25	8-12-19	16-20-28	10-15-21	18-22-31	12-16-23	19-24-34	14-17-25	21-25-36	15-19-26	22-27-38	16-20-28	
	3A1 cfm/Side Throw (ft)	147	42	197	56	246	70	295	84	345	98	394	112	443	126
	11-16-23	6-9-16	15-19-26	8-12-19	17-21-29	10-15-21	19-23-32	12-16-23	20-25-35	14-17-25	22-26-37	15-19-26	23-28-40	16-20-28	
	3B cfm/Side Throw (ft)	168	84	225	112	281	141	337	169	394	197	450	225	506	253
	12-17-24	8-13-19	16-19-27	11-16-22	18-22-31	14-18-25	19-24-34	16-19-28	21-26-36	17-21-30	22-27-39	18-22-32	24-29-41	19-24-34	
2A, 2B cfm/Side Throw (ft)	168		225		281		337		394		450		506		
12-17-24		16-19-27		18-22-31		19-24-34		21-26-36		22-27-39		24-29-41			
2E, 2F cfm/Side Throw (ft)	253	84	338	112	421	141	506	169	591	197	675	225	759	253	
15-19-27	8-13-19	18-22-31	11-16-22	20-24-34	14-18-25	22-27-38	16-19-28	23-29-41	17-21-30	25-31-43	18-22-32	27-33-46	19-24-34		
1A, 1B cfm/Side Throw (ft)	337		450		562		675		787		900		1012		
17-20-29		19-24-33		22-26-37		24-29-41		25-31-44		27-33-47		29-35-50			

For Performance Notes and Return Factors, see end of section.

SMD/AMD

Modular Louvered Face Diffuser

PERFORMANCE DATA

SMD/AMD

Neck Velocity (fpm)		300		400		500		600		700		800		900		
Velocity Pressure (in. w.g.)		0.006		0.01		0.016		0.022		0.031		0.04		0.05		
Total Pressure (in. w.g.)		0.036		0.065		0.099		0.144		0.196		0.256		0.324		
Duct Size	Flow Rate (cfm)	393		524		655		786		917		1050		1180		
		Sound (NC)		18		25		31		35		39		43		
21 in. x 9 in.	4B	cfm/Side	A	B	A	B	A	B	A	B	A	B	A	B	A	B
		Throw (ft)	154	42	206	56	258	70	309	84	360	98	413	112	464	126
21 in. x 9 in.	3A1	cfm/Side	175	42	234	56	292	70	351	84	410	98	468	112	527	126
		Throw (ft)	12-17-24	6-9-16	16-20-28	8-12-18	18-22-31	10-14-20	20-24-34	12-16-22	21-26-37	14-17-24	23-28-39	15-18-26	24-29-41	16-19-27
1.31 ft ²	2A, 2B	cfm/Side	196		262		327		393		458		525		590	
		Throw (ft)	13-17-25		17-20-29		18-23-32		20-25-35		22-27-38		23-29-40		25-30-43	
1.31 ft ²	2E, 2F	cfm/Side	308	84	412	112	514	141	617	169	720	197	825	225	927	253
		Throw (ft)	16-20-28	8-13-20	19-23-33	11-16-23	21-26-36	14-18-25	23-28-40	16-20-28	25-30-43	17-21-30	27-33-46	18-23-32	28-35-49	20-24-34
1.31 ft ²	1A, 1B	cfm/Side	393		524		655		786		917		1050		1180	
		Throw (ft)	17-21-30		20-25-35		22-28-39		25-30-43		27-33-46		28-35-49		30-37-52	
24 in. x 9 in.	4B	Flow Rate (cfm)	450		600		750		900		1050		1200		1350	
		Sound (NC)	-		19		26		32		36		40		44	
24 in. x 9 in.	4B	cfm/Side	183	42	244	56	305	70	366	84	427	98	488	112	549	126
		Throw (ft)	12-17-24	6-9-16	16-20-28	8-12-19	18-22-31	10-15-21	20-24-34	12-16-23	21-26-37	14-17-25	23-28-40	15-19-26	24-30-42	16-20-28
24 in. x 9 in.	3A1	cfm/Side	204	42	272	56	340	70	408	84	476	98	544	112	612	126
		Throw (ft)	13-18-25	6-9-16	17-20-29	8-12-19	19-23-32	10-15-21	20-25-35	12-16-23	22-27-38	14-17-25	24-29-41	15-19-26	25-31-43	16-20-28
1.50 ft ²	2A, 2B	cfm/Side	225		300		375		450		525		600		675	
		Throw (ft)	14-18-26		17-21-30		19-24-33		21-26-36		23-28-39		24-30-42		26-32-45	
1.50 ft ²	2E, 2F	cfm/Side	365	84	488	112	609	141	731	169	853	197	975	225	1097	253
		Throw (ft)	17-21-30	8-12-19	20-24-34	11-16-22	22-27-38	14-18-25	24-30-42	16-19-27	26-32-45	17-21-30	28-34-48	18-22-32	30-36-51	19-24-34
1.50 ft ²	1A, 1B	cfm/Side	450		600		750		900		1050		1200		1350	
		Throw (ft)	18-22-31		21-26-36		23-29-41		26-31-44		28-34-48		30-36-51		31-38-54	
15 in. x 12 in.	4B	Flow Rate (cfm)	375		500		625		750		875		1000		1125	
		Sound (NC)	-		19		26		32		36		40		44	
15 in. x 12 in.	4B	cfm/Side	112	75	150	100	187	125	225	150	262	175	300	200	337	225
		Throw (ft)	10-14-21	8-12-19	13-17-24	11-15-22	16-19-27	13-17-24	17-21-30	15-19-27	19-23-32	17-20-29	20-24-35	18-22-31	21-26-37	19-23-33
15 in. x 12 in.	3A1	cfm/Side	150	75	200	100	250	125	300	150	350	175	400	200	450	225
		Throw (ft)	11-16-23	8-12-19	15-19-26	11-15-22	17-21-30	13-17-24	19-23-32	15-19-27	20-25-35	17-20-29	22-26-37	18-22-31	23-28-40	19-23-33
1.25 ft ²	3A2	cfm/Side	129	117	172	156	215	195	258	234	301	273	344	312	387	351
		Throw (ft)	10-16-22	10-15-21	14-18-25	13-17-25	16-20-28	16-20-28	18-22-31	17-21-30	19-24-34	19-23-33	21-25-36	20-25-35	22-27-38	21-26-37
1.25 ft ²	2A, 2B	cfm/Side	187		250		312		375		437		500		562	
		Throw (ft)	12-17-24		16-20-28		18-22-32		20-24-35		22-26-37		23-28-40		24-30-42	
1.25 ft ²	2E, 2F	cfm/Side	225	150	300	200	375	250	450	300	525	350	600	400	675	450
		Throw (ft)	14-18-26	11-16-23	17-21-30	15-19-26	19-24-33	17-21-30	21-26-36	19-23-32	23-28-39	20-25-35	24-30-42	22-26-37	26-32-45	23-28-40
1.25 ft ²	1A, 1B	cfm/Side	375		500		625		750		875		1000		1125	
		Throw (ft)	17-21-30		20-24-34		22-27-38		24-30-42		26-32-45		28-34-49		30-36-52	
18 in. x 12 in.	4B	Flow Rate (cfm)	450		600		750		900		1050		1200		1350	
		Sound (NC)	-		20		27		33		37		41		45	
18 in. x 12 in.	4B	cfm/Side	150	75	200	100	250	125	300	150	350	175	400	200	450	225
		Throw (ft)	11-16-23	8-12-19	15-19-27	10-15-22	17-21-30	13-17-24	19-23-33	15-19-27	20-25-35	17-20-29	22-27-38	18-22-31	23-28-40	19-23-32
18 in. x 12 in.	3A1	cfm/Side	187	75	250	100	312	125	375	150	437	175	500	200	562	225
		Throw (ft)	12-17-24	8-12-19	16-20-28	10-15-22	18-22-31	13-17-24	20-24-35	15-19-27	22-26-37	17-20-29	23-28-40	18-22-31	24-30-42	19-23-32
1.50 ft ²	3A2	cfm/Side	141	168	187	225	234	281	281	337	328	394	375	450	422	506
		Throw (ft)	11-16-23	12-17-24	14-18-26	16-19-27	17-21-29	18-22-31	18-23-32	19-24-34	20-24-34	21-26-36	21-26-37	22-27-39	23-28-39	24-29-41
1.50 ft ²	2A, 2B	cfm/Side	225		300		375		450		525		600		675	
		Throw (ft)	14-18-26		17-21-30		19-24-33		21-26-36		23-28-39		24-30-42		26-32-45	
1.50 ft ²	2E, 2F	cfm/Side	300	150	400	200	500	250	600	300	700	350	800	400	900	450
		Throw (ft)	16-20-28	11-16-23	19-23-32	15-19-27	21-25-36	17-21-30	23-28-39	19-23-33	25-30-43	20-25-35	26-32-46	22-27-38	28-34-48	23-28-40
1.50 ft ²	1A, 1B	cfm/Side	450		600		750		900		1050		1200		1350	
		Throw (ft)	18-22-31		21-26-36		23-29-41		26-31-44		28-34-48		30-36-51		31-38-54	
21 in. x 12 in.	4B	Flow Rate (cfm)	525		700		875		1050		1225		1400		1575	
		Sound (NC)	-		20		27		33		37		41		45	
21 in. x 12 in.	4B	cfm/Side	187	75	250	100	312	125	375	150	437	175	500	200	562	225
		Throw (ft)	12-17-24	8-12-19	16-20-28	11-15-22	18-22-31	13-17-24	20-24-35	15-19-27	22-26-37	17-20-29	23-28-40	18-22-31	24-30-42	19-23-33
21 in. x 12 in.	3A1	cfm/Side	225	75	300	100	375	125	450	150	525	175	600	200	675	225
		Throw (ft)	14-18-26	8-12-19	17-21-30	11-15-22	19-23-33	13-17-24	21-26-36	15-19-27	23-28-39	17-20-29	24-30-42	18-22-31	26-32-45	19-23-33
1.75 ft ²	3A2	cfm/Side	148	230	197	306	246	382	295	460	345	535	394	612	443	688
		Throw (ft)	11-16-23	14-18-26	15-19-26	17-21-30	17-21-30	19-24-33	19-23-32	21-26-37	20-25-35	23-28-39	22-26-37	24-30-42	23-28-40	26-32-45
1.75 ft ²	2A, 2B	cfm/Side	262		350		437		525		612		700		787	
		Throw (ft)	15-19-27		18-22-31		20-25-35		22-27-38		24-29-41		25-31-44		27-33-47	
1.75 ft ²	2E, 2F	cfm/Side	375	150	500	200	625	250	750	300	875	350	1000	400	1125	450
		Throw (ft)	17-21-30	11-16-23	20-24-34	15-19-26	22-27-39	17-21-30	24-30-42	19-23-32	26-32-46	20-25-35	28-34-49	22-26-37	30-37-52	23-28-40
1.75 ft ²	1A, 1B	cfm/Side	525		700		875		1050		1225		1400		1575	
		Throw (ft)	19-23-33		22-27-38		24-30-42		27-33-46		29-35-50		31-38-54		33-40-57	

For Performance Notes and Return Factors, see end of section.

PERFORMANCE DATA

SMD/AMD

Neck Velocity (fpm)		300		400		500		600		700		800		900	
Velocity Pressure (in. w.g.)		0.006		0.01		0.016		0.022		0.031		0.04		0.05	
Total Pressure (in. w.g.)		0.036		0.065		0.099		0.144		0.196		0.256		0.324	
Duct Size 24 in. x 12 in.	Flow Rate (cfm)	600		800		1000		1200		1400		1600		1800	
	Sound (NC)	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Duct Area 2.00 ft ²	4B cfm/Side Throw (ft)	225	75	300	100	375	125	450	150	525	175	600	200	675	225
	3A1 cfm/Side Throw (ft)	14-18-26	8-12-19	17-21-30	10-15-22	19-23-33	13-17-24	21-26-36	15-19-26	23-28-39	16-20-29	24-30-42	18-22-30	26-31-44	19-23-32
	3B cfm/Side Throw (ft)	15-19-27	8-12-19	18-22-31	10-15-22	20-25-35	16-20-29	22-27-38	15-19-26	24-29-41	16-20-29	25-31-44	18-22-30	27-33-47	19-23-32
	2A, 2B cfm/Side Throw (ft)	300	150	400	200	500	250	600	300	700	350	800	400	900	450
	2E, 2F cfm/Side Throw (ft)	16-20-28	11-16-23	19-23-32	15-19-26	21-26-36	17-21-30	23-28-40	19-23-32	25-30-43	20-25-35	26-32-46	22-26-37	28-34-48	23-28-40
	1A, 1B cfm/Side Throw (ft)	300	400	500	600	700	800	900	1050	1200	1350	1500	1650	1800	1950
	1A, 1B cfm/Side Throw (ft)	16-20-28	19-23-32	21-26-36	23-28-40	25-30-43	26-32-46	28-34-48	30-37-52	32-39-56	34-42-59	36-44-63	38-46-70	40-48-74	42-50-78
Duct Size 18 in. x 15 in.	Flow Rate (cfm)	562		750		937		1125		1312		1500		1687	
	Sound (NC)	-		21		28		34		38		42		46	
	4B cfm/Side Throw (ft)	164	117	219	156	273	195	328	234	383	273	438	312	492	351
	3A1 cfm/Side Throw (ft)	12-17-24	10-15-21	16-19-27	13-17-25	18-21-30	16-19-28	19-24-33	17-21-30	21-25-36	19-23-33	22-27-38	20-25-35	24-29-41	21-26-37
	3A2 cfm/Side Throw (ft)	14-18-26	10-15-21	17-21-30	13-17-25	19-23-33	16-19-28	21-26-36	17-21-30	23-28-39	19-23-33	24-30-42	20-25-35	26-31-44	21-26-37
	2A, 2B cfm/Side Throw (ft)	197	168	262	225	328	281	394	337	459	394	525	450	590	506
	2E, 2F cfm/Side Throw (ft)	13-18-25	12-17-24	17-20-29	16-19-27	18-23-32	18-22-31	20-25-35	19-24-34	22-27-38	21-26-36	23-29-40	22-27-39	25-30-43	24-29-41
Duct Area 1.88 ft ²	2A, 2B cfm/Side Throw (ft)	281	375	468	562	656	750	844	937	1030	1125	1219	1312	1406	1500
	2E, 2F cfm/Side Throw (ft)	15-19-27	18-22-32	20-25-35	22-27-39	24-30-42	26-32-45	27-34-48	29-35-50	31-38-53	33-40-56	35-43-61	37-45-64	39-47-68	
	1A, 1B cfm/Side Throw (ft)	329	234	438	312	547	390	657	468	766	546	876	624	985	702
	1A, 1B cfm/Side Throw (ft)	16-20-29	14-18-26	19-23-33	17-21-30	21-26-37	19-24-34	23-29-40	21-26-37	25-31-44	23-28-40	27-33-47	24-30-42	29-35-50	26-32-45
	1A, 1B cfm/Side Throw (ft)	562	750	937	1125	1312	1500	1687	1875	2062	2250	2437	2625	2812	
	1A, 1B cfm/Side Throw (ft)	19-24-33	22-27-39	25-31-43	27-33-47	29-36-51	32-39-55	35-43-58	38-46-62	41-49-66	44-53-70	47-56-74	50-60-78	53-64-82	
	1A, 1B cfm/Side Throw (ft)	19-24-33	22-27-39	25-31-43	27-33-47	29-36-51	32-39-55	35-43-58	38-46-62	41-49-66	44-53-70	47-56-74	50-60-78	53-64-82	
Duct Size 21 in. x 15 in.	Flow Rate (cfm)	655		875		1092		1312		1532		1750		1970	
	Sound (NC)	-		21		28		34		38		42		46	
	4B cfm/Side Throw (ft)	210	117	281	156	351	195	422	234	493	273	563	312	634	351
	3A1 cfm/Side Throw (ft)	13-18-25	10-15-21	17-21-29	13-17-25	19-23-33	16-19-28	21-25-36	17-21-30	22-27-39	19-23-33	24-29-41	20-25-35	25-31-44	21-26-37
	3A2 cfm/Side Throw (ft)	15-19-27	10-15-21	18-22-31	13-17-25	20-25-35	16-19-28	22-27-38	17-21-30	24-29-41	19-23-33	26-31-44	20-25-35	27-33-47	21-26-37
	2A, 2B cfm/Side Throw (ft)	213	230	284	306	355	382	426	460	498	535	569	612	641	688
	2E, 2F cfm/Side Throw (ft)	13-18-25	14-18-26	17-21-29	17-21-30	19-23-33	19-24-33	21-25-36	21-26-37	22-27-39	23-28-40	24-29-41	24-30-42	25-31-44	26-32-45
Duct Area 2.19 ft ²	2A, 2B cfm/Side Throw (ft)	327	437	547	656	766	875	985	1092	1200	1309	1418	1527	1636	1745
	2E, 2F cfm/Side Throw (ft)	16-20-29	19-23-33	22-27-39	23-29-41	25-31-44	27-33-47	29-35-50	31-38-53	33-40-56	35-43-61	37-45-64	39-47-68	41-49-66	
	1A, 1B cfm/Side Throw (ft)	422	234	563	312	702	390	844	468	986	546	1126	624	1268	702
	1A, 1B cfm/Side Throw (ft)	18-22-31	14-18-26	21-25-36	17-21-30	23-28-40	19-24-34	25-31-44	21-26-37	27-33-47	23-28-40	29-36-50	24-30-42	31-38-53	26-32-45
	1A, 1B cfm/Side Throw (ft)	655	875	1092	1312	1532	1750	1970	2188	2406	2625	2843	3062	3281	
	1A, 1B cfm/Side Throw (ft)	20-25-35	23-29-40	26-32-45	29-35-49	32-39-53	35-43-57	38-46-61	41-49-65	44-53-69	47-56-73	50-60-77	53-64-81	56-68-85	
	1A, 1B cfm/Side Throw (ft)	20-25-35	23-29-40	26-32-45	29-35-49	32-39-53	35-43-57	38-46-61	41-49-65	44-53-69	47-56-73	50-60-77	53-64-81	56-68-85	
Duct Size 24 in. x 15 in.	Flow Rate (cfm)	750		1000		1250		1500		1750		2000		2250	
	Sound (NC)	-		22		29		35		39		43		47	
	4B cfm/Side Throw (ft)	258	117	344	156	430	195	516	234	602	273	688	312	774	351
	3A1 cfm/Side Throw (ft)	15-19-27	10-15-21	18-22-31	13-17-25	20-25-35	16-19-27	22-27-38	17-21-30	24-29-41	19-23-32	25-31-44	20-25-35	27-33-46	21-26-37
	3A2 cfm/Side Throw (ft)	16-20-28	10-15-21	19-23-33	13-17-25	21-26-37	16-19-27	23-28-40	17-21-30	25-31-43	19-23-32	27-33-46	20-25-35	28-35-49	21-26-37
	2A, 2B cfm/Side Throw (ft)	225	300	300	400	375	500	450	600	525	700	600	800	675	900
	2E, 2F cfm/Side Throw (ft)	14-18-26	16-20-28	17-21-30	19-23-32	19-24-33	21-26-36	21-26-36	23-28-40	23-28-39	25-30-43	24-30-42	26-32-46	26-32-45	28-34-48
Duct Area 2.50 ft ²	2A, 2B cfm/Side Throw (ft)	375	500	625	750	875	1000	1125	1250	1375	1500	1625	1750	1875	2000
	2E, 2F cfm/Side Throw (ft)	17-21-30	20-24-34	22-27-38	24-30-42	26-32-45	28-34-49	30-36-52	32-38-56	34-40-59	36-42-63	38-44-67	40-46-70	42-48-74	
	1A, 1B cfm/Side Throw (ft)	516	234	688	312	860	390	1032	468	1204	546	1376	624	1548	702
	1A, 1B cfm/Side Throw (ft)	19-23-33	14-18-26	22-27-38	17-21-30	24-30-42	19-24-34	27-33-46	21-26-37	29-35-50	23-28-40	31-38-53	25-30-43	33-40-56	26-32-45
	1A, 1B cfm/Side Throw (ft)	750	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	
	1A, 1B cfm/Side Throw (ft)	21-26-36	24-30-42	27-33-47	30-36-51	33-39-55	36-42-59	39-45-63	42-49-67	45-53-71	48-56-75	51-60-79	54-64-88	57-68-97	
	1A, 1B cfm/Side Throw (ft)	21-26-36	24-30-42	27-33-47	30-36-51	33-39-55	36-42-59	39-45-63	42-49-67	45-53-71	48-56-75	51-60-79	54-64-88	57-68-97	

For Performance Notes and Return Factors, see end of section.

Core Style Legend



PERFORMANCE DATA

SMD/AMD

Neck Velocity (fpm)		300		400		500		600		700		800		900		
Velocity Pressure (in. w.g.)		0.006		0.01		0.016		0.022		0.031		0.04		0.05		
Total Pressure (in. w.g.)		0.036		0.065		0.099		0.144		0.196		0.256		0.324		
Duct Size 21 in. x 18 in.	Flow Rate (cfm) Sound (NC)	787		1050		1310		1575		1840		2100		2360		
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Duct Area 2.63 ft ²	4B	cfm/Side Throw (ft)	225 14-18-26	169 12-17-24	300 17-21-30	225 16-19-28	374 19-23-33	281 18-22-31	450 21-26-36	337 19-24-34	526 23-28-39	394 21-26-36	600 24-30-42	450 22-28-39	674 26-31-44	506 24-29-41
	3A1	cfm/Side Throw (ft)	309 16-20-28	169 12-17-24	412 19-23-33	225 16-19-28	514 21-26-36	281 18-22-31	619 23-28-40	337 19-24-34	723 25-31-43	394 21-26-36	825 27-33-46	450 22-28-39	927 28-35-49	506 24-29-41
	3B	cfm/Side Throw (ft)	279 15-19-27	230 14-18-26	372 18-22-32	306 17-21-30	464 20-25-35	382 19-24-33	557 22-27-39	460 21-26-37	652 24-30-42	535 23-28-40	744 26-32-45	612 24-30-42	836 27-34-48	688 26-32-45
	2A, 2B	cfm/Side Throw (ft)	393 17-21-30		525 20-25-35		655 22-28-39		787 25-30-43		920 27-33-46		1050 28-35-49		1180 30-37-52	
	2E, 2F	cfm/Side Throw (ft)	450 18-22-31	338 17-20-29	600 21-26-36	450 19-24-33	750 23-29-41	560 21-26-37	900 26-31-44	675 24-29-41	1060 28-34-48	790 26-31-44	1200 30-36-51	900 27-33-47	1350 31-38-54	1010 29-35-50
	1A, 1B	cfm/Side Throw (ft)	787 21-26-37		1050 25-30-42		1310 27-34-47		1575 30-37-52		1840 32-40-56		2100 35-42-60		2360 37-45-64	

Duct Size 24 in. x 18 in.	Flow Rate (cfm) Sound (NC)	900		1200		1500		1800		2100		2400		2700		
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Duct Area 3.00 ft ²	4B	cfm/Side Throw (ft)	281 15-19-27	169 12-17-24	375 18-22-32	225 16-19-27	469 20-25-35	281 18-22-31	563 22-27-39	337 19-24-33	656 24-30-42	394 21-26-36	750 26-32-45	450 22-27-39	844 27-34-48	506 24-29-41
	3A1	cfm/Side Throw (ft)	366 17-21-30	169 12-17-24	487 20-24-34	225 16-19-27	609 22-27-38	281 18-22-31	731 24-30-42	337 19-24-33	853 26-32-45	394 21-26-36	975 28-34-48	450 22-27-39	1098 30-36-51	506 24-29-41
	3B	cfm/Side Throw (ft)	300 16-20-28	300 16-20-28	400 19-23-32	400 19-23-32	500 21-26-36	500 21-26-36	600 23-28-40	600 23-28-40	700 25-30-43	700 25-30-43	800 26-32-46	800 26-32-46	900 28-34-49	900 28-34-49
	2A, 2B	cfm/Side Throw (ft)	450 18-22-31		600 21-26-36		750 23-29-41		900 26-31-44		1050 28-34-48		1200 30-36-51		1350 31-38-54	
	2E, 2F	cfm/Side Throw (ft)	562 19-24-33	338 17-20-29	750 22-27-39	450 19-24-33	938 25-31-43	562 21-26-37	1125 27-33-47	675 24-29-41	1313 30-36-51	787 25-31-44	1500 32-39-55	900 27-33-47	1688 33-41-58	1012 29-35-50
	1A, 1B	cfm/Side Throw (ft)	900 22-27-38		1200 25-31-44		1500 28-35-49		1800 31-38-54		2100 34-41-58		2400 36-44-62		2700 38-47-66	

Duct Size 24 in. x 21 in.	Flow Rate (cfm) Sound (NC)	1050		1400		1750		2100		2450		2800		3150		
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Duct Area 3.50 ft ²	4B	cfm/Side Throw (ft)	295 16-20-28	230 14-18-26	394 19-23-32	306 17-21-30	493 21-25-36	382 19-24-33	590 23-28-39	460 21-26-37	690 25-30-43	535 23-28-39	788 26-32-45	612 24-30-42	887 28-34-48	688 26-32-45
	3A1	cfm/Side Throw (ft)	410 18-22-31	230 14-18-26	547 20-25-35	306 17-21-30	684 23-28-39	382 19-24-33	820 25-31-43	460 21-26-37	957 27-33-47	535 23-28-39	1094 29-35-50	612 24-30-42	1231 31-37-53	688 26-32-45
	3B	cfm/Side Throw (ft)	375 17-21-30	300 16-20-28	500 20-24-34	400 19-23-32	625 22-27-38	400 19-23-32	750 24-30-42	600 23-28-39	875 26-32-45	700 25-30-43	1000 28-34-49	800 26-32-45	1125 30-36-52	900 28-34-48
	2A, 2B	cfm/Side Throw (ft)	525 19-23-33		700 22-27-38		875 24-30-42		1050 27-33-46		1225 29-35-50		1400 31-38-54		1575 33-40-57	
	2E, 2F	cfm/Side Throw (ft)	591 20-24-34	459 18-22-32	788 23-28-39	612 21-26-36	986 25-31-44	764 23-29-41	1180 28-34-48	920 26-32-45	1380 30-37-52	1070 28-34-48	1576 32-39-55	1224 30-36-51	1774 34-42-59	1376 31-39-55
	1A, 1B	cfm/Side Throw (ft)	1050 23-28-40		1400 27-33-46		1750 30-36-52		2100 33-40-56		2450 35-43-61		2800 38-46-65		3150 40-49-69	

SMD/AMD Return Factors

Duct Size	"-" SP	NC	Duct Size	"-" SP	NC	Duct Size	"-" SP	NC	Duct Size	"-" SP	NC
6 x 6	0.73 x Listed TP	Listed NC	9 x 6	0.87 x Listed TP	Listed NC - 1	15 x 9	1.20 x Listed TP	Listed NC + 3	24 x 12	1.80 x Listed TP	Listed NC + 5
9 x 9	0.87 x Listed TP	Listed NC + 2	12 x 6	1.13 x Listed TP	Listed NC + 1	18 x 9	1.47 x Listed TP	Listed NC + 3	18 x 15	1.40 x Listed TP	Listed NC + 4
12 x 12	0.93 x Listed TP	Listed NC + 4	15 x 6	1.33 x Listed TP	Listed NC + 1	21 x 9	1.73 x Listed TP	Listed NC + 4	21 x 15	1.47 x Listed TP	Listed NC + 5
15 x 15	1.27 x Listed TP	Listed NC + 4	18 x 6	1.87 x Listed TP	Listed NC + 2	24 x 9	2.00 x Listed TP	Listed NC + 4	24 x 15	1.80 x Listed TP	Listed NC + 6
18 x 18	1.47 x Listed TP	Listed NC + 6	21 x 6	2.27 x Listed TP	Listed NC + 3	15 x 12	1.13 x Listed TP	Listed NC + 2	21 x 18	1.53 x Listed TP	Listed NC + 5
21 x 21	1.80 x Listed TP	Listed NC + 8	24 x 6	2.73 x Listed TP	Listed NC + 4	18 x 12	1.33 x Listed TP	Listed NC + 3	24 x 18	1.73 x Listed TP	Listed NC + 6
24 x 24	1.89 x Listed TP	Listed NC + 8	12 x 9	2.73 x Listed TP	Listed NC + 4	21 x 12	1.53 x Listed TP	Listed NC + 5	24 x 21	1.47 x Listed TP	Listed NC + 7

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 - 2006 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
$$P_{total} = P_{static} + P_{velocity}$$
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Performance Data is tabulated for supply air applications.
- Performance Data assumes the SMD / AMD is ceiling mounted for maximum ceiling effect. When no ceiling is present, the horizontal flow will be reduced by approximately 25%, producing a downward projection.
- Does not include effects of ceiling radiation damper (SMD-FR).

PERFORMANCE DATA

SMDA/AMDA – Adjustable Pattern Controllers

Louvered Face Directional Diffuser with Adjustable Pattern Controllers Performance Factors

Duct Size	Sound NC (Add)		Pressure TP (Multiply)		Throw Vertical (Multiply)			
	H	V	H	V	Cooling ΔT °F		Heating ΔT °F	
					20	0	20	40
6 x 6	3	7	1.3	1.6	1.3	1.1	0.8	0.6
9 x 9	3	7	1.5	2.3	1.5	1.2	0.9	0.6
12 x 12	3	7	1.5	2.3	1.6	1.3	1.0	0.6
15 x 15	3	7	1.5	2.3	1.7	1.3	1.0	0.6
18 x 18	3	7	1.5	2.3	1.7	1.3	0.9	0.6
21 x 21	3	7	1.5	2.3	1.7	1.3	0.8	0.5
24 x 24	3	7	1.5	2.3	1.5	1.1	0.7	0.5

Performance Correction Factors for SR Adaptors

AMD SMD Size	Round Neck	TP Correction (Multiply)	NC Correction (Add)	Throw Correction (Multiply)		
				VT 150	VT 100	VT 50
6 x 6	5	1.65	7	1.10	1.10	1.15
9 x 9	6	3.5	17	1.15	1.15	1.20
9 x 9	8	1.4	4	1.10	1.10	1.10
12 x 12	8	3.5	17	1.15	1.15	1.20
12 x 12	10	1.65	7	1.10	1.10	1.15
15 x 15	10	3.5	17	1.15	1.15	1.20
15 x 15	12	1.9	9	1.10	1.10	1.15
15 x 15	14	1.25	3	1.05	1.05	1.10
18 x 18	12	3.5	17	1.15	1.15	1.20
18 x 18	14	2.0	10	1.10	1.10	1.15
18 x 18	16	1.45	5	1.10	1.10	1.10
21 x 21	14	3.7	17	1.15	1.15	1.20
21 x 21	16	2.25	11	1.10	1.10	1.15
21 x 21	18	1.6	6	1.10	1.10	1.10
21 x 21	20	1.2	3	1.05	1.05	1.10
24 x 24	16	3.5	17	1.15	1.15	1.20
24 x 24	18	2.35	12	1.10	1.10	1.15
24 x 24	20	1.65	7	1.10	1.10	1.15
24 x 24	22	1.33	4	1.05	1.05	1.10

Performance Notes:

To obtain performance data for the SMD diffuser with adjustable pattern controllers, apply the correction factors listed opposite to the data listed for square SMD, core style 4A.

Correction factors apply as follows:

1. Sound: NC = listed + correction factor.
2. Pressure drop: TP = listed x correction factor.
3. Does not include effects of ceiling radiation damper (SMDA-FR)

Note: The throw factor is applied only to the listed throw at 50 fpm terminal velocity (V_t).

Example, Imperial Units:

SMD with adjustable pattern controllers, 12 in. x 12 in., 600 cfm, heating application, 40 °F ΔT, vertical projection.

NC = 30+7 = 37

TP = 0.144 x 2.3 = 0.33

Throw = 27 x 0.6 = 16ft V_t 50 fpm.

Note: Total pressure and throw obtained from performance data.

Example, Metric Units:

SMD with adjustable pattern controllers, 305 mm x 305 mm, 283 cfm, heating application, 22 °C ΔT, vertical projection.

NC = 30+7 = 37 NC

TP = 36 x 2.3 = 82.8 Pa

Throw = 8.1 x 0.6 = 4.86m VT 0.25 m/s.

Note: Total pressure and throw obtained from performance data.

Core Style Legend



SMD/AMD

Modular Louvered Face Diffuser

PERFORMANCE DATA

SMX/AMX – High Induction Construction

Neck Velocity (fpm)		300	400	500	600	700	800	900							
Velocity Pressure (in. w.g.)		0.006	0.01	0.016	0.022	0.031	0.04	0.05							
Total Pressure (in. w.g.)		0.038	0.068	0.106	0.153	0.208	0.272	0.344							
Duct Size	Flow Rate (cfm)	75		100		125		150		175		200		225	
6 in. x 6 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
Duct Area 0.25 ft ²	4A	19		25		31		38		44		50		56	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Throw (ft)	3-4-8		3-5-10		4-6-13		5-8-14		6-9-15		7-10-16		8-11-17
	3A	19	28	25	38	31	47	38	56	44	66	50	75	56	84
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Throw (ft)	3-4-8	3-5-9	3-5-10	4-6-12	4-6-13	5-8-14	5-8-14	6-9-16	6-9-15	7-11-17	7-10-16	8-12-18	8-11-17
Duct Area 0.56 ft ²	2S, 2G	38		50		63		75		88		100		113	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	4-5-11		5-7-14		6-9-16		7-11-17		8-13-19		10-14-20		11-15-21
	1S	75		100		125		150		175		200		225	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	5-8-15		7-10-17		8-13-19		10-15-21		12-16-23		14-17-24		15-18-26
Duct Size	Flow Rate (cfm)	169		225		281		338		394		450		506	
9 in. x 9 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
Duct Area 0.56 ft ²	4A	42		56		70		84		98		113		127	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	4-6-11		5-8-15		6-10-16		8-11-18		9-13-19		10-15-21		11-15-22
	3A	42	63	56	84	70	105	84	127	98	148	113	169	127	190
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	4-6-11	5-7-14	5-8-15	6-9-16	6-10-16	8-12-18	8-11-18	9-14-20	9-13-19	11-15-22	10-15-21	12-16-23	11-15-22
Duct Area 1 ft ²	2S, 2G	84		113		141		169		197		225		253	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	5-8-15		7-11-18		9-13-20		11-15-22		13-17-24		14-18-25		15-19-27
	1S	169		225		281		338		394		450		506	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	8-11-19		10-15-22		13-17-25		15-19-27		17-21-29		18-22-31		19-23-33
Duct Size	Flow Rate (cfm)	300		400		500		600		700		800		900	
12 in. x 12 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
Duct Area 1 ft ²	4A	75		100		125		150		175		200		225	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	5-8-15		7-10-17		8-13-19		10-15-21		12-16-23		14-17-24		15-18-26
	3A	75	113	100	150	125	188	150	225	175	263	200	300	225	338
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	5-8-15	6-9-17	7-10-17	8-12-19	8-13-19	10-15-22	10-15-21	12-17-24	12-16-23	14-18-26	14-17-24	16-19-28	15-18-26
Duct Area 1.56 ft ²	2S, 2G	150		200		250		300		350		400		450	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	7-11-18		10-14-21		12-17-24		14-18-26		16-20-28		17-21-30		18-23-32
	1S	300		400		500		600		700		800		900	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	10-15-23		14-18-26		17-21-29		18-23-32		20-24-35		21-26-37		23-28-39
Duct Size	Flow Rate (cfm)	469		625		781		938		1094		1250		1406	
15 in. x 15 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
Duct Area 1.56 ft ²	4A	117		156		195		234		273		313		352	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	6-10-17		8-13-20		11-16-22		13-17-24		15-18-26		16-20-28		17-21-30
	3A	117	176	156	234	195	293	234	352	273	410	313	469	352	527
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	6-10-17	8-12-19	8-13-20	10-16-22	11-16-22	13-18-25	13-17-24	16-19-27	15-18-26	17-21-29	16-20-28	18-22-31	17-21-30
Duct Area 1.56 ft ²	2S, 2G	234		313		391		469		547		625		703	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	9-13-21		12-17-24		15-19-27		17-21-30		19-23-32		20-24-34		21-26-36
	1S	469		625		781		938		1094		1250		1406	
		Sound (NC)	-	-	-	-	-	-	-	-	-	-	-	-	
		Throw (ft)	13-18-26		17-21-30		19-24-33		21-26-37		23-28-40		24-30-42		26-32-45

For Performance Notes and Return Factors, see end of section.

Core Style Legend



PERFORMANCE DATA

SMX/AMX – High Induction Construction

Neck Velocity (fpm)		300		400		500		600		700		800		900	
Velocity Pressure (in. w.g.)		0.006		0.01		0.016		0.022		0.031		0.04		0.05	
Total Pressure (in. w.g.)		0.038		0.068		0.106		0.153		0.208		0.272		0.344	
Duct Size	Flow Rate (cfm)	675		900		1125		1350		1575		1800		2025	
18 in. x 18 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
4A	cfm/Side	169		225		281		338		394		450		506	
	Sound (NC)	17		26		34		40		45		49		53	
	Throw (ft)	8-11-19		10-15-22		13-17-25		15-19-27		17-21-29		18-22-31		19-23-33	
3A	cfm/Side	169	253	225	338	281	422	338	506	394	591	450	675	506	759
	Sound (NC)	17		26		34		40		45		49		53	
	Throw (ft)	8-11-19	9-14-22	10-15-22	12-18-25	13-17-25	16-20-28	15-19-27	18-22-30	17-21-29	19-23-33	18-22-31	20-25-35	19-23-33	22-26-37
2S, 2G	cfm/Side	338		450		563		675		788		900		1013	
	Sound (NC)	20		29		36		42		47		51		55	
	Throw (ft)	11-16-23		14-19-27		17-21-30		19-23-33		21-25-36		22-27-38		23-29-41	
1S	cfm/Side	675		900		1125		1350		1575		1800		2025	
	Sound (NC)	20		29		36		42		47		51		55	
	Throw (ft)	15-20-29		19-24-33		22-26-37		24-29-41		25-31-44		27-33-47		29-35-50	
Duct Size	Flow Rate (cfm)	919		1225		1532		1838		2144		2450		2757	
21 in. x 21 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
4A	cfm/Side	230		306		383		459		536		613		689	
	Sound (NC)	19		29		36		42		48		52		56	
	Throw (ft)	9-13-21		12-17-24		15-19-27		17-21-30		18-23-32		20-24-34		21-26-36	
3A	cfm/Side	230	345	306	459	383	574	459	689	536	804	613	919	689	1034
	Sound (NC)	19		29		36		42		48		52		56	
	Throw (ft)	9-13-21	11-16-24	12-17-24	14-19-27	15-19-27	18-22-30	17-21-30	19-24-33	18-23-32	21-25-36	20-24-34	22-27-39	21-26-36	24-29-41
2S, 2G	cfm/Side	459		613		766		919		1072		1225		1378	
	Sound (NC)	23		32		39		45		49		54		57	
	Throw (ft)	13-18-26		17-21-30		19-23-33		21-26-36		23-28-39		24-30-42		26-32-45	
1S	cfm/Side	919		1225		1532		1838		2144		2450		2757	
	Sound (NC)	23		32		39		45		49		54		57	
	Throw (ft)	18-22-32		21-26-37		24-29-41		26-32-45		28-34-48		30-37-52		32-39-55	
Duct Size	Flow Rate (cfm)	1200		1600		2000		2400		2800		3200		3600	
24 in. x 24 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
4A	cfm/Side	300		400		500		600		700		800		900	
	Sound (NC)	22		31		39		45		50		54		58	
	Throw (ft)	10-15-23		14-18-26		17-21-29		18-23-32		20-24-35		21-26-37		23-28-39	
3A	cfm/Side	300	450	400	600	500	750	600	900	700	1050	800	1200	900	1350
	Sound (NC)	22		31		39		45		50		54		58	
	Throw (ft)	10-15-23	12-18-26	14-18-26	17-21-30	17-21-29	19-23-33	18-23-32	21-26-36	20-24-35	23-28-39	21-26-37	24-30-42	23-28-39	26-31-44
2S, 2G	cfm/Side	600		800		1000		1200		1400		1600		1800	
	Sound (NC)	25		34		41		47		51		56		59	
	Throw (ft)	14-20-28		19-23-32		21-25-36		23-28-39		25-30-43		26-32-46		28-34-48	
1S	cfm/Side	1200		1600		2000		2400		2800		3200		3600	
	Sound (NC)	25		34		41		47		51		56		59	
	Throw (ft)	20-24-34		23-28-40		26-31-44		28-34-49		30-37-52		32-40-56		34-42-59	
Duct Size	Flow Rate (cfm)	113		150		188		225		263		300		338	
9 in. x 6 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B
4B	cfm/Side	37	18	50	24	62	30	74	36	87	42	99	48	111	54
	Sound (NC)	-		-		18		24		29		33		37	
	Throw (ft)	4-5-2011	2-4-07	5-7-14	3-5-10	6-9-16	4-6-12	7-11-17	5-7-14	8-12-18	6-9-15	10-14-20	7-10-16	11-15-21	7-11-17
3A2	cfm/Side	35	43	47	57	58	71	70	86	81	100	93	114	105	128
	Sound (NC)	-		-		18		24		29		33		37	
	Throw (ft)	3-5-2010	4-6-11	5-7-14	5-8-15	6-9-15	6-10-16	7-10-17	8-11-18	8-12-18	9-13-19	9-14-19	10-15-21	10-15-21	11-15-22
2A, 2B	cfm/Side	56		75		94		113		131		150		169	
	Sound (NC)	-		16		23		29		34		38		41	
	Throw (ft)	4-7-13		6-9-16		7-11-18		9-13-19		10-15-21		12-16-22		13-17-24	
1A, 1B	cfm/Side	113		150		188		225		263		300		338	
	Sound (NC)	-		17		24		30		35		39		43	
	Throw (ft)	6-9-17		8-12-19		10-15-22		12-17-24		14-18-26		16-19-28		17-21-29	

For Performance Notes and Return Factors, see end of section.

Core Style Legend



PERFORMANCE DATA

SMX/AMX – High Induction Construction

Neck Velocity (fpm)		300		400		500		600		700		800		900		
Velocity Pressure (in. w.g.)		0.006		0.01		0.016		0.022		0.031		0.04		0.05		
Total Pressure (in. w.g.)		0.038		0.068		0.106		0.153		0.208		0.272		0.344		
Duct Size	Flow Rate (cfm)	150		200		250		300		350		400		450		
12 in. x 6 in.		A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Duct Area 0.5 ft ²	4B	cfm/Side Sound (NC) Throw (ft)	56 - 4-7-13	18 - 2-4-07	74 - 6-9-16	24 - 3-5-10	93 20 7-11-18	30 - 4-6-12	111 26 9-13-19	36 - 5-7-14	130 31 10-15-21	42 - 6-9-15	148 36 12-16-22	48 - 7-10-16	167 40 13-17-24	54 - 7-11-17
	3B	cfm/Side Sound (NC) Throw (ft)	75 - 5-8-15	38 - 4-5-11	100 - 7-10-17	50 - 5-7-14	125 20 8-13-19	63 - 6-9-16	150 26 10-15-21	75 - 7-11-17	175 31 12-16-23	88 - 8-13-19	200 36 14-17-24	100 - 10-14-20	225 40 15-18-26	113 - 11-15-21
	2A, 2B	cfm/Side Sound (NC) Throw (ft)	75 - 5-8-15	- - -	100 18 7-10-17	- - -	125 25 8-13-19	- - -	150 31 10-15-21	- - -	175 36 12-16-23	- - -	200 40 14-17-24	- - -	225 44 15-18-26	- - -
	1A, 1B	cfm/Side Sound (NC) Throw (ft)	150 - 7-11-18	- - -	200 19 10-14-21	- - -	250 26 12-17-24	- - -	300 32 14-18-26	- - -	350 37 16-20-28	- - -	400 41 17-21-30	- - -	450 45 18-23-32	- - -
	4B	cfm/Side Sound (NC) Throw (ft)	75 - 5-8-15	19 - 3-4-08	100 15 7-10-17	25 - 3-5-10	125 22 8-13-19	31 - 4-6-13	150 28 10-15-21	38 - 5-8-14	175 33 12-16-23	44 - 6-9-15	200 38 14-17-24	50 - 7-10-16	225 42 15-18-26	56 - 8-11-17
	3A1	cfm/Side Sound (NC) Throw (ft)	84 - 5-8-15	19 - 3-4-08	113 15 7-11-18	25 - 3-5-10	141 22 9-13-20	31 - 4-6-13	169 28 11-15-22	38 - 5-8-14	197 33 13-17-24	44 - 6-9-15	225 38 14-18-25	50 - 7-10-16	253 42 15-19-27	56 - 8-11-17
2A, 2B	cfm/Side Sound (NC) Throw (ft)	94 - 6-9-16	- - -	125 20 8-11-18	- - -	156 27 9-14-21	- - -	188 32 11-16-23	- - -	219 37 13-17-24	- - -	250 42 15-18-26	- - -	281 45 16-20-28	- - -	
1A, 1B	cfm/Side Sound (NC) Throw (ft)	188 - 8-12-20	- - -	250 21 11-16-23	- - -	313 28 13-18-25	- - -	375 33 16-20-28	- - -	438 38 17-21-30	- - -	500 42 19-23-32	- - -	563 46 20-24-34	- - -	
15 in. x 6 in.		188		250		313		375		438		500		563		
18 in. x 6 in.		225		300		375		450		525		600		675		
Duct Area 0.75 ft ²	4B	cfm/Side Sound (NC) Throw (ft)	95 - 6-9-16	18 - 2-4-07	126 16 8-11-18	24 - 3-5-10	158 24 9-14-21	30 - 4-6-12	189 30 11-16-23	36 - 5-7-14	221 35 13-17-24	42 - 6-9-15	252 39 15-18-26	48 - 7-10-16	284 43 16-20-28	54 - 7-11-17
	3A1	cfm/Side Sound (NC) Throw (ft)	104 - 6-9-16	18 - 2-4-07	138 16 8-12-19	24 - 3-5-10	173 24 10-15-21	30 - 4-6-12	207 30 12-16-23	36 - 5-7-14	242 35 14-18-25	42 - 6-9-15	276 39 16-19-27	48 - 7-10-16	311 43 16-20-28	54 - 7-11-17
	2A, 2B	cfm/Side Sound (NC) Throw (ft)	113 - 6-9-17	- - -	150 21 8-12-19	- - -	188 28 10-15-22	- - -	225 34 12-17-24	- - -	263 39 14-18-26	- - -	300 43 16-19-28	- - -	338 47 17-21-29	- - -
	1A, 1B	cfm/Side Sound (NC) Throw (ft)	225 - 9-13-21	- - -	300 22 12-17-24	- - -	375 29 15-19-27	- - -	450 35 17-21-29	- - -	525 39 18-22-32	- - -	600 44 20-24-34	- - -	675 47 21-25-36	- - -
	4B	cfm/Side Sound (NC) Throw (ft)	70 - 5-7-15	43 - 4-6-11	93 16 7-10-17	57 - 5-8-15	116 24 8-12-19	71 - 6-10-16	140 30 10-15-21	86 - 8-11-18	163 35 11-16-22	100 - 9-13-19	186 39 13-17-24	114 - 10-15-21	209 43 15-18-25	128 - 11-15-22
	3A2	cfm/Side Sound (NC) Throw (ft)	74 - 5-8-15	74 - 5-8-15	99 16 7-10-17	99 - 7-10-17	124 24 8-13-19	124 - 8-13-19	149 30 10-15-21	149 - 10-15-21	173 35 12-16-23	173 - 12-16-23	198 39 13-17-24	198 - 13-17-24	223 43 15-18-26	223 - 15-18-26
2A, 2B	cfm/Side Sound (NC) Throw (ft)	113 - 6-9-17	- - -	150 21 8-12-19	- - -	188 28 10-15-22	- - -	225 34 12-17-24	- - -	263 39 14-18-26	- - -	300 43 16-19-28	- - -	338 47 17-21-29	- - -	
1A, 1B	cfm/Side Sound (NC) Throw (ft)	225 - 9-13-21	- - -	300 22 12-17-24	- - -	375 29 15-19-27	- - -	450 35 17-21-29	- - -	525 39 18-22-32	- - -	600 44 20-24-34	- - -	675 47 21-25-36	- - -	

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2006 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
Ptotal = Pstatic + Pvelocity
- Throw data is based on supply air and room air being at isothermal conditions
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Additional performance data for other patterns and rectangular sizes available upon request.
- Does not include effects of ceiling radiation damper (SMX-FR).

Core Style Legend



PERFORMANCE DATA

MSD – Security Construction

Neck Size	Neck Velocity (fpm)	300	400	500	600	700	800	900
	Velocity Pressure (in. w.g.)	0.006	0.01	0.016	0.022	0.031	0.04	0.05
	Total Pressure (in. w.g.)	0.042	0.074	0.115	0.166	0.226	0.296	0.374
6 x 6	Flow Rate (cfm)	75	100	125	150	175	200	225
	Sound (NC)	-	-	21	28	33	38	42
	Throw (ft)	2-5-9	4-6-10	5-8-11	6-9-13	7-10-14	8-10-15	9-11-15
9 x 9	Flow Rate (cfm)	169	225	281	338	394	450	506
	Sound (NC)	-	18	26	33	38	43	47
	Throw (ft)	3-5-11	5-7-15	6-9-17	7-11-19	9-13-20	10-15-22	11-16-23
12 x 12	Flow Rate (cfm)	300	400	500	600	700	800	900
	Sound (NC)	-	22	30	36	41	46	50
	Throw (ft)	3-6-13	5-8-17	7-10-21	8-13-25	10-15-27	11-17-29	13-19-31
15 x 15	Flow Rate (cfm)	469	625	781	938	1094	1250	1406
	Sound (NC)	-	24	32	39	44	49	53
	Throw (ft)	3-7-14	6-9-19	8-12-23	9-14-28	11-16-32	12-19-36	14-21-38
18 x 18	Flow Rate (cfm)	675	900	1125	1350	1575	1800	2025
	Sound (NC)	17	27	35	41	46	51	55
	Throw (ft)	4-8-15	6-10-20	8-13-25	10-15-30	12-18-35	13-20-40	15-23-45
21 x 21	Flow Rate (cfm)	919	1225	1531	1838	2144	2450	2756
	Sound (NC)	18	29	36	43	48	53	57
	Throw (ft)	4-8-16	7-11-22	9-14-27	11-16-32	13-19-38	14-22-43	16-24-49
24 x 24	Flow Rate (cfm)	1200	1600	2000	2400	2800	3200	3600
	Sound (NC)	20	30	38	44	50	55	59
	Throw (ft)	4-9-17	7-12-23	10-14-29	12-17-35	13-20-40	15-23-46	17-26-52

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 cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
5. Throw data is based on supply air and room air being at isothermal conditions.
6. NC values are based on a room absorption of -10 dB, re 10⁻¹² watt s and one diffuser.
7. Performance data is tabulated for supply air applications.
8. Blanks "-" indicate an NC level below 15.
9. Corrections for return application: add 5 To listed NC; multiply listed total pressure by 1.40 to obtain negative static pressure.
10. Performance data is based on L4 faceplate pattern.

PERFORMANCE DATA

SMDP – Plaque Face, 1 Slot

6	Flow Rate (cfm)	39	59	79	98	118	137	157	196	236
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.006	0.014	0.025	0.039	0.056	0.077	0.100	0.156	0.225
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	-	-	-	18	22	28	33
Throw (ft) 150, 100, 50		0-1-2	1-1-4	1-2-5	2-3-7	2-4-8	3-5-9	4-5-10	4-7-11	5-8-13
8	Flow Rate (cfm)	70	105	140	174	209	244	279	349	419
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.014	0.032	0.058	0.090	0.130	0.176	0.230	0.360	0.518
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	-	21	26	30	33	40	45
Throw (ft) 150, 100, 50		1-2-5	2-4-7	3-5-9	4-6-11	5-7-12	5-8-13	6-9-14	8-11-15	9-12-17
10	Flow Rate (cfm)	109	164	218	273	327	382	436	545	654
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.027	0.062	0.110	0.172	0.247	0.337	0.440	0.687	0.990
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	16	24	30	35	39	43	49	54
Throw (ft) 150, 100, 50		2-4-7	4-5-10	5-7-12	6-9-14	7-10-15	9-11-16	10-12-17	11-14-19	12-15-21

SMDP – Plaque Face, 2 Slot

6	Flow Rate (cfm)	39	59	79	98	118	137	157	196	236
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.004	0.009	0.016	0.025	0.036	0.049	0.064	0.100	0.144
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	-	-	-	-	16	22	27
Throw (ft) 150, 100, 50		0-0-1	0-0-2	0-1-3	0-1-4	1-2-5	1-2-6	1-3-7	2-4-9	3-5-11
8	Flow Rate (cfm)	70	105	140	174	209	244	279	349	419
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.007	0.016	0.028	0.044	0.063	0.086	0.112	0.175	0.252
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	-	-	18	22	26	32	37
Throw (ft) 150, 100, 50		0-1-2	1-1-5	1-2-6	2-3-8	2-5-10	3-6-11	4-6-13	5-8-15	6-10-17
10	Flow Rate (cfm)	109	164	218	273	327	382	436	545	654
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.011	0.024	0.043	0.067	0.097	0.132	0.172	0.269	0.387
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	15	21	26	30	34	39	44
Throw (ft) 150, 100, 50		1-1-5	1-3-7	2-5-10	4-6-12	5-7-15	6-9-16	7-10-17	8-12-19	10-15-21
12	Flow Rate (cfm)	157	236	314	393	471	550	628	785	942
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.015	0.034	0.061	0.096	0.138	0.187	0.245	0.382	0.550
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	21	27	32	36	40	46	51
Throw (ft) 150, 100, 50		1-3-7	3-5-11	5-7-14	6-9-16	7-11-18	8-13-19	10-14-21	12-16-23	14-18-25

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 cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
5. Throw data is based on supply air and room air being at isothermal conditions.
6. NC values are based on a room absorption of -10 dB, re 10⁻¹² watt s and one diffuser.
7. Blanks "-" indicate an NC level below 15.

Core Style Legend



PERFORMANCE DATA

SMDP – Plaque Face, 3 Slot

8	Flow Rate (cfm)	70	105	140	174	209	244	279	349	419
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.006	0.013	0.023	0.035	0.051	0.069	0.090	0.141	0.203
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	-	16	21	25	29	35	40
Throw (ft) 150, 100, 50	0-0-2	0-1-4	1-2-6	1-3-7	-4-9	2-5-10	3-6-12	5-7-15	6-9-17	
10	Flow Rate (cfm)	109	164	218	273	327	382	436	545	654
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.007	0.017	0.030	0.046	0.067	0.091	0.119	0.186	0.268
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	-	19	24	28	32	37	42
Throw (ft) 150, 100, 50	0-1-4	1-2-7	2-4-9	3-6-12	4-7-14	5-8-16	6-9-17	8-12-19	9-14-21	
12	Flow Rate (cfm)	157	236	314	393	471	550	628	785	942
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.009	0.021	0.037	0.058	0.084	0.114	0.149	0.233	0.335
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	16	21	26	30	34	40	45
Throw (ft) 150, 100, 50	1-2-7	2-5-10	4-7-13	6-8-16	7-10-18	8-12-19	9-13-21	11-16-23	13-18-25	
14	Flow Rate (cfm)	214	321	427	534	641	748	855	1068	1282
	Neck Velocity (fpm)	200	300	400	500	600	700	800	1000	1200
	Total Pressure (in. w.g.)	0.011	0.025	0.045	0.070	0.101	0.138	0.180	0.281	0.405
	Velocity Pressure (in. w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090
	Sound (NC)	-	-	17	23	28	32	36	42	47
Throw (ft) 150, 100, 50	2-4-9	4-7-14	6-9-17	8-11-19	9-14-21	11-16-22	12-17-24	15-19-27	17-21-29	

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 cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
5. Throw data is based on supply air and room air being at isothermal conditions.
6. NC values are based on a room absorption of -10 dB, re 10⁻¹² watt s and one diffuser.
7. Blanks "-" indicate an NC level below 15.

Core Style Legend



PERFORMANCE DATA

LCMD – Light Commercial Construction

Neck Velocity (fpm)		300	400	500	600	700	800	900										
Velocity Pressure (in. w.g.)		0.006	0.01	0.016	0.022	0.031	0.04	0.05										
Total Pressure (in. w.g.)		0.049	0.086	0.135	0.195	0.265	0.346	0.438										
Duct Size	Flow Rate (cfm)	75		100		125		150		175		200		225		255		
6 in. x 6 in.	Sound (NC)	-		18		23		26		30		33		35		38		
Duct Area 0.25 ft ²	4A	19		25		31		38		44		50		56		62		
	3A	19 28		25 38		31 47		38 56		44 66		50 75		56 84		62 92		
	2S, 2G	38		50		63		75		88		100		113		126		
	1S	75		100		125		150		175		200		225		255		
	1S	6-9-17		8-12-23		10-15-25		12-17-28		14-20-30		16-23-32		17-24-34		18-21-27		19-22-30
Duct Size	Flow Rate (cfm)	133		178		222		266		311		355		400		444		
8 in. x 8 in.	Sound (NC)	-		21		26		30		33		36		38		41		
Duct Area 0.444 ft ²	4A	33		45		56		67		78		89		100		111		
	3A	33 50		45 67		56 83		67 100		78 117		89 133		100 150		111 171		
	2S, 2G	67		89		111		133		156		178		200		222		
	1S	133		178		222		266		311		355		400		444		
	1S	8-12-23		10-16-27		13-19-30		16-23-32		18-25-35		21-27-37		23-28-40		25-31-41		27-33-43
Duct Size	Flow Rate (cfm)	208		278		347		416		486		555		625		694		
10 in. x 10 in.	Sound (NC)	17		23		28		32		35		38		41		44		
Duct Area 0.694 ft ²	4A	52		70		87		104		122		139		156		173		
	3A	52 78		70 104		87 130		104 156		122 182		139 208		156 234		173 261		
	2S, 2G	104		139		174		208		243		278		313		347		
	1S	208		278		347		416		486		555		625		694		
	1S	10-15-26		13-19-30		16-24-34		19-26-37		23-28-40		27-33-43		31-37-47		35-41-51		39-45-55
Duct Size	Flow Rate (cfm)	300		400		500		600		700		800		900		1000		
12 in. x 12 in.	Sound (NC)	19		25		30		34		37		40		43		46		
Duct Area 1 ft ²	4A	75		100		125		150		175		200		225		250		
	3A	75 113		100 150		125 188		150 225		175 263		200 300		225 338		250 375		
	2S, 2G	150		200		250		300		350		400		450		500		
	1S	300		400		500		600		700		800		900		1000		
	1S	12-17-29		16-23-33		19-26-37		23-29-41		26-31-44		29-35-50		32-39-51		35-42-55		38-46-60
Duct Size	Flow Rate (cfm)	408		544		680		816		952		1088		1224		1360		
14 in. x 14 in.	Sound (NC)	21		27		32		36		39		42		44		46		
Duct Area 1.36 ft ²	4A	102		136		170		204		238		272		306		340		
	3A	102 153		136 204		170 255		204 306		238 357		272 408		306 459		340 510		
	2S, 2G	204		272		340		408		476		544		612		680		
	1S	408		544		680		816		952		1088		1224		1360		
	1S	14-20-32		18-26-36		23-29-41		26-32-45		28-34-48		30-36-52		32-39-55		34-42-59		36-44-64
Duct Size	Flow Rate (cfm)	531		708		885		1062		1239		1416		1593		1770		
16 in. x 16 in.	Sound (NC)	22		29		33		37		40		43		46		49		
Duct Area 1.77 ft ²	4A	133		177		221		266		310		354		398		442		
	3A	133 199		177 266		221 332		266 398		310 465		354 531		398 597		442 663		
	2S, 2G	266		354		443		531		620		708		797		885		
	1S	531		708		885		1062		1239		1416		1593		1770		
	1S	15-23-34		21-28-39		25-31-44		28-34-48		30-37-52		32-39-56		34-42-59		36-44-64		38-46-70

For Performance Notes and Return Factors, see end of section.

Core Style Legend



PERFORMANCE DATA

LCMD – Light Commercial Construction

Neck Velocity (fpm)		300	400	500	600	700	800	900
Velocity Pressure (in. w.g.)		0.006	0.01	0.016	0.022	0.031	0.04	0.05
Total Pressure (in. w.g.)		0.049	0.086	0.135	0.195	0.265	0.346	0.438
Duct Size 18 in. x 18 in.	Flow Rate (cfm)	675	900	1125	1350	1575	1800	2025
	Sound (NC)	24	30	35	38	42	45	47
Duct Area 2.25 ft ²	4A cfm/Side Throw (ft)	169 9-13-25	225 12-17-28	281 15-22-32	338 17-25-35	44 20-27-38	394 23-28-40	506 25-30-43
	3A cfm/Side Throw (ft)	169 253 9-13-25 11-16-28	225 338 12-17-28 14-21-32	281 422 15-22-32 18-25-36	338 506 17-25-35 21-28-39	44 591 20-27-38 24-30-42	394 675 23-28-40 26-32-45	506 759 25-30-43 28-34-48
	2S, 2G cfm/Side Throw (ft)	338 12-19-30	450 16-24-35	563 21-27-39	675 24-30-42	788 26-32-46	900 28-35-49	1013 30-37-52
	1S cfm/Side Throw (ft)	675 17-26-36	900 23-30-42	1125 27-33-47	1350 30-36-52	1575 32-39-56	1800 34-42-60	2025 36-45-63
Duct Size 20 in. x 20 in.	Flow Rate (cfm)	831	1108	1385	1162	1939	2216	2493
	Sound (NC)	25	31	36	40	43	46	48
Duct Area 2.77 ft ²	4A cfm/Side Throw (ft)	208 10-15-26	277 13-19-30	346 16-24-34	416 19-26-37	485 23-28-40	554 25-30-43	623 26-32-45
	3A cfm/Side Throw (ft)	208 312 10-15-26 12-18-29	277 416 13-19-30 16-24-34	346 519 16-24-34 20-27-38	416 623 19-26-37 24-29-41	485 727 23-28-40 26-32-45	554 831 25-30-43 28-34-48	623 935 26-32-45 29-36-51
	2S, 2G cfm/Side Throw (ft)	416 14-21-32	554 18-26-37	693 23-29-41	831 26-32-45	970 28-34-48	1108 30-37-52	1247 32-39-55
	1S cfm/Side Throw (ft)	831 19-27-39	1108 26-32-45	1385 29-35-50	1662 32-39-55	1939 34-42-59	2216 36-45-63	2493 39-47-67
Duct Size 22 in. x 22 in.	Flow Rate (cfm)	1008	1344	1680	2016	2352	2688	3024
	Sound (NC)	26	32	37	41	44	47	49
Duct Area 3.36 ft ²	4A cfm/Side Throw (ft)	252 11-16-28	336 14-21-32	420 18-25-36	504 21-28-39	588 24-30-42	672 26-32-45	756 28-34-48
	3A cfm/Side Throw (ft)	252 378 11-16-28 13-20-31	336 504 14-21-32 17-25-36	420 630 18-25-36 22-28-40	504 756 21-28-39 25-31-44	588 882 24-30-42 27-33-47	672 1008 26-32-45 29-36-50	756 1134 28-34-48 31-38-54
	2S, 2G cfm/Side Throw (ft)	504 15-23-34	672 20-27-39	840 25-31-43	1008 27-34-47	1176 30-36-51	1344 32-39-55	1512 34-41-58
	1S cfm/Side Throw (ft)	1008 21-29-41	1344 27-33-47	1680 30-37-53	2016 33-41-58	2352 36-44-62	2688 39-47-67	3024 41-50-71
Duct Size 24 in. x 24 in.	Flow Rate (cfm)	1200	1600	2000	2400	2800	3200	3600
	Sound (NC)	27	33	38	42	45	48	50
Duct Area 4 ft ²	4A cfm/Side Throw (ft)	300 12-17-29	400 16-23-33	500 19-26-37	600 23-29-41	700 26-31-44	800 27-33-47	900 29-35-50
	3A cfm/Side Throw (ft)	300 450 12-17-29 14-21-32	400 600 16-23-33 19-27-38	500 750 19-26-37 24-30-42	600 900 23-29-41 27-32-46	700 1050 26-31-44 29-35-50	800 1200 27-33-47 31-38-53	900 1350 29-35-50 32-40-56
	2S, 2G cfm/Side Throw (ft)	600 16-25-35	800 22-29-41	1000 26-32-46	1200 29-35-50	1400 31-38-54	1600 33-41-58	1800 35-43-61
	1S cfm/Side Throw (ft)	1200 23-30-43	1600 29-35-50	2000 32-39-55	2400 35-43-61	2800 38-46-66	3200 41-50-70	3600 43-53-74

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 cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150-100-50 fpm.
5. Throw data is based on supply air and room air being at isothermal conditions.
6. NC values are based on a room absorption of -10 dB, re 10⁻¹² watt s and one diffuser.
7. Blanks "-" indicate an NC level below 15.

Core Style Legend

