



ENGINEERING DATA

M, AM: Square Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x6	Total CFM	75		100		125		150		175		200		225	
	NC	5		13		19		23		27		31		34	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1SQ	CFM/Side	75	0	100	0	125	0	150	0	175	0	200	0	225	0
	Throw (ft.)	7-9-13		9-11-16		10-12-18		11-13-19		12-15-21		13-16-22		13-17-24	
2SQ	CFM/Side	38	38	50	50	63	63	75	75	88	88	100	100	113	113
	Throw (ft.)	3-5-10	3-5-10	5-7-12	5-7-12	6-9-13	6-9-13	7-10-14	7-10-14	8-11-15	8-11-15	9-12-17	9-12-17	10-12-18	10-12-18
2CS	CFM/Side	38	38	50	50	63	63	75	75	88	88	100	100	113	113
	Throw (ft.)	3-5-10	3-5-10	5-7-12	5-7-12	6-9-13	6-9-13	7-10-14	7-10-14	8-11-15	8-11-15	9-12-17	9-12-17	10-12-18	10-12-18
3SQ	CFM/Side	19	28	25	38	31	47	38	56	44	66	50	75	56	84
	Throw (ft.)	3-4-8	3-5-9	4-6-9	4-7-10	5-7-10	6-8-11	6-8-10	7-9-13	7-8-12	8-9-14	7-9-13	8-10-15	8-9-13	9-11-16
4SQ	CFM/Side	19	19	25	25	31	31	38	38	44	44	50	50	56	56
	Throw (ft.)	3-4-8	3-4-8	4-6-9	4-6-9	5-7-10	5-7-10	6-8-11	6-8-11	7-8-12	7-8-12	7-9-13	7-9-13	8-9-13	8-9-13

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x9	Total CFM	169		225		281		338		394		450		506	
	NC	8		15		21		26		30		34		37	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1SQ	CFM/Side	169	0	225	0	281	0	338	0	394	0	450	0	506	0
	Throw (ft.)	11-14-20		13-17-24		15-19-27		17-20-29		18-22-31		19-24-34		20-25-36	
2SQ	CFM/Side	84	84	113	113	141	141	169	169	197	197	225	225	253	253
	Throw (ft.)	5-8-15	5-8-15	7-11-18	7-11-18	9-14-20	9-14-20	11-15-22	11-15-22	13-16-23	13-16-23	14-18-25	14-18-25	15-19-27	15-19-27
2CS	CFM/Side	84	84	113	113	141	141	169	169	197	197	225	225	253	253
	Throw (ft.)	5-8-15	5-8-15	7-11-18	7-11-18	9-14-20	9-14-20	11-15-22	11-15-22	13-16-23	13-16-23	14-18-25	14-18-25	15-19-27	15-19-27
3SQ	CFM/Side	42	63	56	84	70	105	84	127	98	148	113	169	127	190
	Throw (ft.)	4-7-12	5-8-13	6-9-13	7-11-16	8-11-15	9-12-17	9-12-17	11-13-19	11-13-18	12-14-21	11-13-19	13-16-22	14-14-20	13-16-24
4SQ	CFM/Side	42	42	56	56	70	70	84	84	98	98	113	113	127	127
	Throw (ft.)	4-7-12	4-7-12	6-9-13	6-9-13	8-11-15	8-11-15	9-12-17	9-12-17	10-13-18	10-13-18	11-13-19	11-13-19	14-14-20	14-14-20

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
12x12	Total CFM	300		400		500		600		700		800		900	
	NC	8		15		21		26		30		34		37	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1SQ	CFM/Side	300	0	400	0	500	0	600	0	700	0	800	0	900	0
	Throw (ft.)	15-19-27		18-22-32		20-25-36		22-27-39		24-30-42		26-32-45		27-34-48	
2SQ	CFM/Side	150	150	200	200	250	250	300	300	350	350	400	400	450	450
	Throw (ft.)	7-11-20	7-11-20	10-15-24	10-15-24	12-19-27	12-19-27	15-20-29	15-20-29	17-22-31	17-22-31	19-24-34	19-24-34	20-25-36	20-25-36
2CS	CFM/Side	150	150	200	200	250	250	300	300	350	350	400	400	450	450
	Throw (ft.)	7-11-20	7-11-20	10-15-24	10-15-24	12-19-27	12-19-27	15-20-29	15-20-29	17-22-31	17-22-31	19-24-34	19-24-34	20-25-36	20-25-36
3SQ	CFM/Side	75	113	100	150	125	188	150	225	175	263	200	300	225	338
	Throw (ft.)	6-9-16	7-11-18	8-13-18	9-14-21	11-14-20	14-17-24	13-16-22	14-18-26	14-17-24	16-19-28	15-18-26	17-21-30	16-19-27	18-22-32
4SQ	CFM/Side	75	75	100	100	125	125	150	150	175	175	200	200	225	225
	Throw (ft.)	6-9-16	6-9-16	8-13-18	8-13-18	11-14-20	11-14-20	13-16-22	13-16-22	14-17-24	14-17-24	15-18-26	15-18-26	16-19-27	16-19-27

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
3. NC is based upon 10dB room absorption (Re: 10^{-12} watts) evaluated at 125 through 4000 Hz octave bands.
4. Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
5. Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
6. Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%.

ENGINEERING DATA

M, AM: Square Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
15x15	Total CFM	469		625		781		938		1094		1250		1406	
	NC	11		19		21		29		33		37		40	
1SQ	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
	CFM/Side	469	0	625	0	781	0	938	0	1094	0	1250	0	1406	0
2SQ	Throw (ft.)	19-24-34		23-28-40		26-31-45		28-34-49		30-37-53		32-40-57		34-42-60	
	CFM/Side	234	234	313	313	391	391	469	469	547	547	625	625	703	703
2CS	Throw (ft.)	9-14-26	9-14-26	12-19-30	12-19-30	15-23-33	15-23-33	19-26-36	19-26-36	22-28-39	22-28-39	24-30-42	24-30-42	26-32-45	26-32-45
	CFM/Side	234	234	313	313	391	391	469	469	547	547	625	625	703	703
3SQ	Throw (ft.)	9-14-26	9-14-26	12-19-30	12-19-30	15-23-33	15-23-33	19-26-36	19-26-36	22-28-39	22-28-39	24-30-42	24-30-42	26-32-45	26-32-45
	CFM/Side	117	176	156	234	195	293	234	352	273	410	313	496	352	527
4SQ	Throw (ft.)	8-12-20	9-13-23	11-16-23	12-18-26	13-18-25	15-21-29	16-20-28	18-23-32	17-21-30	20-24-35	18-23-32	21-26-37	20-24-34	23-28-40
	CFM/Side	117	117	156	156	195	195	234	234	273	273	313	313	352	352
4SQ	Throw (ft.)	8-12-20	8-12-20	11-16-23	11-16-23	13-18-25	13-18-25	16-20-28	16-20-28	17-21-30	17-21-30	18-23-32	18-23-32	20-24-34	20-24-34

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
18x18	Total CFM	675		900		1125		1350		1575		1800		2025	
	NC	12		20		26		31		35		38		41	
1SQ	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
	CFM/Side	675	0	900	0	1125	0	1350	0	1575	0	1800	0	2025	0
2SQ	Throw (ft.)	22-29-41		27-34-48		31-38-54		34-41-59		36-45-63		39-48-68		41-51-72	
	CFM/Side	338	338	450	450	563	563	675	675	788	788	900	900	1013	1013
2CS	Throw (ft.)	11-17-31	11-17-31	15-22-36	15-22-36	19-28-40	19-28-40	22-31-44	22-31-44	26-33-47	26-33-47	29-36-51	29-36-51	31-38-54	31-38-54
	CFM/Side	338	338	450	450	563	563	675	675	788	788	900	900	1013	1013
3SQ	Throw (ft.)	11-17-31	11-17-31	15-22-36	15-22-36	19-28-40	19-28-40	22-31-44	22-31-44	26-33-47	26-33-47	29-36-51	29-36-51	31-38-54	31-38-54
	CFM/Side	169	253	225	338	281	422	338	506	394	591	450	675	506	759
4SQ	Throw (ft.)	9-14-24	11-16-27	13-19-27	14-22-32	16-22-31	18-25-35	19-24-34	22-27-39	21-26-36	24-29-42	22-27-39	26-32-45	24-29-41	27-33-48
	CFM/Side	169	169	225	225	281	281	338	338	394	394	450	450	506	506
4SQ	Throw (ft.)	9-14-24	9-14-24	13-19-27	13-19-27	16-22-31	16-22-31	19-24-34	19-24-34	21-26-36	21-26-36	22-27-39	22-27-39	24-29-41	24-29-41

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
21x21	Total CFM	909		1225		1531		1838		2144		2450		2756	
	NC	13		21		27		32		36		39		42	
1SQ	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
	CFM/Side	919	0	1225	0	1531	0	1838	0	2144	0	2450	0	2756	0
2SQ	Throw (ft.)	26-34-48		32-39-56		36-44-63		39-48-69		43-52-74		46-56-79		48-59-84	
	CFM/Side	459	459	613	613	766	766	919	919	1072	1072	1225	1225	1378	1378
2CS	Throw (ft.)	13-19-36	13-19-36	17-26-42	17-26-42	22-33-47	22-33-47	26-36-51	26-36-51	31-39-55	31-39-55	34-42-59	34-42-59	36-44-63	36-44-63
	CFM/Side	459	459	613	613	766	766	919	919	1072	1072	1225	1225	1378	1378
3SQ	Throw (ft.)	13-19-36	13-19-36	17-26-42	17-26-42	22-33-47	22-33-47	26-36-51	26-36-51	31-39-55	31-39-55	34-42-59	34-42-59	36-44-63	36-44-63
	CFM/Side	230	345	306	459	383	574	459	689	536	804	613	919	689	1034
4SQ	Throw (ft.)	11-17-28	12-19-32	15-22-32	17-25-37	19-25-36	21-29-41	22-28-39	25-32-45	24-30-42	28-34-49	26-32-45	30-37-52	28-34-48	32-39-56
	CFM/Side	230	230	306	306	383	383	459	459	536	536	613	613	689	689
4SQ	Throw (ft.)	11-17-28	11-17-28	15-22-32	15-22-32	19-25-36	19-25-36	22-28-39	22-28-39	24-30-42	24-30-42	26-32-45	26-32-45	28-34-48	28-34-48

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
3. NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
4. Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
5. Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
6. Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%.



ENGINEERING DATA

M, AM: Square Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
24x24	Total CFM	1200		1600		2000		2400		2800		3200		3600	
	NC	14		22		28		32		36		40		43	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1SQ	CFM/Side	1200	0	1600	0	2000	0	2400	0	2800	0	3200	0	3600	0
	Throw (ft.)	30-39-55		37-45-64		41-50-72		45-55-78		49-60-85		52-64-91		55-68-96	
2SQ	CFM/Side	600	600	800	800	1000	1000	1200	1200	1400	1400	1600	1600	1800	1800
	Throw (ft.)	15-22-41	15-22-41	20-30-48	20-30-48	25-38-54	25-38-54	30-41-59	30-41-59	35-45-63	35-45-63	39-48-68	39-48-68	41-51-72	41-51-72
2CS	CFM/Side	600	600	800	800	1000	1000	1200	1200	1400	1400	1600	1600	1800	1800
	Throw (ft.)	15-22-41	15-22-41	20-30-48	20-30-48	25-38-54	25-38-54	30-41-59	30-41-59	35-45-63	35-45-63	39-48-68	39-48-68	41-51-72	41-51-72
3SQ	CFM/Side	300	450	400	600	500	750	600	900	700	1050	800	1200	900	1350
	Throw (ft.)	13-19-32	14-22-36	17-26-37	19-29-42	22-29-41	24-33-47	26-32-45	29-36-52	28-34-49	32-39-56	30-37-52	34-42-60	21-39-55	36-45-64
4SQ	CFM/Side	300	300	400	400	500	500	600	600	700	700	800	800	900	900
	Throw (ft.)	13-19-32	13-19-32	17-26-37	17-26-37	22-29-41	22-29-41	26-32-45	26-32-45	28-34-49	28-34-49	30-37-52	30-37-52	21-39-55	21-39-55

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
30x30	Total CFM	1875		2500		3125		3750		4375		5000		5625	
	NC	16		23		29		34		38		41		44	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1SQ	CFM/Side	1875	0	2500	0	3125	0	3750	0	4375	0	5000	0	5625	0
	Throw (ft.)	38-49-69		46-57-80		52-63-90		57-69-98		61-75-106		65-80-114		69-85-120	
2SQ	CFM/Side	938	938	1250	1250	1563	1563	1875	1875	2188	2188	2500	2500	2813	2813
	Throw (ft.)	19-28-52	19-28-52	25-38-60	25-38-60	31-47-67	31-47-67	38-52-73	38-52-73	44-56-79	44-56-79	49-60-85	49-60-85	52-64-90	52-64-90
2CS	CFM/Side	938	938	1250	1250	1563	1563	1875	1875	2188	2188	2500	2500	2813	2813
	Throw (ft.)	19-28-52	19-28-52	25-38-60	25-38-60	31-47-67	31-47-67	38-52-73	38-52-73	44-56-79	44-56-79	49-60-85	49-60-85	52-64-90	52-64-90
3SQ	CFM/Side	469	703	625	938	781	1172	938	1406	1094	1641	1250	1875	1406	2109
	Throw (ft.)	16-24-40	18-27-46	22-32-46	24-36-53	27-36-51	30-42-59	32-40-56	36-46-65	35-43-61	40-49-70	37-46-65	43-53-75	40-49-69	46-56-80
4SQ	CFM/Side	469	469	625	625	781	781	938	938	1094	1094	1250	1250	1406	1406
	Throw (ft.)	16-24-40	16-24-40	22-32-46	22-32-46	27-36-51	27-36-51	32-40-56	32-40-56	35-43-61	35-43-61	37-46-65	37-46-65	40-49-65	40-49-65

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
36x36	Total CFM	2700		3600		4500		5400		6300		7200		8100	
	NC	17		24		30		35		39		43		46	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1SQ	CFM/Side	2700	0	3600	0	4500	0	5400	0	6300	0	7200	0	8100	0
	Throw (ft.)	45-59-83		55-68-96		62-76-108		68-83-118		73-90-127		78-96-136		83-102-145	
2SQ	CFM/Side	1350	1350	1800	1800	2250	2250	2700	2700	3150	3150	3600	3600	4050	4050
	Throw (ft.)	22-34-62	22-34-62	30-45-72	30-45-72	38-57-81	38-57-81	42-62-88	42-62-88	53-67-95	53-67-95	59-72-102	59-72-102	62-76-108	62-76-108
2CS	CFM/Side	1350	1350	1800	1800	2250	2250	2700	2700	3150	3150	3600	3600	4050	4050
	Throw (ft.)	22-34-62	22-34-62	30-45-72	30-45-72	38-57-81	38-57-81	42-62-88	42-62-88	53-67-95	53-67-95	59-72-102	59-72-102	62-76-108	62-76-108
3SQ	CFM/Side	675	1013	900	1350	1125	1688	1350	2025	1575	2363	1800	2700	2025	3038
	Throw (ft.)	19-29-48	22-33-55	26-39-55	29-44-64	33-44-62	36-50-71	39-48-68	44-55-78	42-52-73	48-59-84	45-55-78	52-64-90	48-59-83	55-67-96
4SQ	CFM/Side	675	675	900	900	1125	1125	1350	1350	1575	1575	1800	1800	2025	2025
	Throw (ft.)	19-29-48	19-29-48	26-39-55	26-39-55	33-44-62	33-44-62	39-48-68	39-48-68	42-52-73	42-52-73	45-55-78	45-55-78	48-59-83	48-59-83

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
48x48	Total CFM	4800		6400		8000		9600		11200		12800		144000	
	NC	19		26		32		37		41		45		48	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1SQ	CFM/Side	4800	0	6400	0	8000	0	9600	0	11200	0	12800	0	14400	0
	Throw (ft.)	61-78-111		74-91-128		83-101-144		91-111-157		98-120-170		105-128-182		111-136-193	
2SQ	CFM/Side	2400	2400	3200	3200	4000	4000	4800	4800	5600	5600	6400	6400	7200	7200
	Throw (ft.)	30-45-83	30-45-83	40-60-96	40-60-96	50-76-108	50-76-108	60-83-118	60-83-118	70-90-127	70-90-127	78-96-136	78-96-136	83-102-144	83-102-144
2CS	CFM/Side	2400	2400	3200	3200	4000	4000	4800	4800	5600	5600	6400	6400	7200	7200
	Throw (ft.)	30-45-83	30-45-83	40-60-96	40-60-96	50-76-108	50-76-108	60-83-118	60-83-118	70-90-127	70-90-127	78-96-136	78-96-136	83-102-144	83-102-144
3SQ	CFM/Side	1200	1800	1600	2400	2000	3000	2400	3600	2800	4200	3200	4800	3600	5400
	Throw (ft.)	26-39-64	29-44-73	35-52-74	39-58-85	44-58-82	49-67-95	52-64-90	58-73-104	56-69-98	65-79-112	60-74-104	69-85-120	64-78-111	73-90-128
4SQ	CFM/Side	1200	1200	1600	1600	2000	2000	2400	2400	2800	2800	3200	3200	3600	3600
	Throw (ft.)	26-39-64	26-39-64	35-52-74	35-52-74	44-58-82	44-58-82	52-64-90	52-64-90	56-69-98	56-69-98	60-74-104	60-74-104	64-78-111	64-78-111

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Units: Neck Velocity = fpm; Total Pressure (P^t) = in. wc;
3. NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
4. Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
5. Throw: Throw values shown are measured in feet and based upon isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
6. Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%.

ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x9	Total CFM	113		150		188		225		263		300		338	
	NC	7		14		20		25		29		32		35	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	113	0	150	0	188	0	225	0	263	0	300	0	338	0
	Throw (ft.)	10-12-18		12-14-21		13-16-23		14-18-25		16-19-27		12-21-29		18-21-33	
2RL, 2RS	CFM/Side	56	56	75	75	94	94	113	113	131	131	150	150	169	169
	Throw (ft.)	5-8-15	5-8-15	7-11-17	7-11-17	9-13-19	9-13-19	11-15-21	11-15-21	13-16-22	13-16-22	14-17-24	14-17-24	15-18-26	15-18-26
2CL, 2CR	CFM/Side	37	75	50	100	62	125	75	150	87	175	100	200	112	225
	Throw (ft.)	4-6-11	7-10-15	5-8-13	9-11-16	7-10-15	10-12-18	8-11-16	11-14-20	10-12-17	12-15-21	11-13-19	13-16-23	11-14-20	14-17-24
3RS	CFM/Side	19	47	25	63	31	78	38	94	44	109	50	125	56	141
	Throw (ft.)	4-6-10	6-9-13	5-8-12	8-11-15	7-9-13	10-12-17	8-10-14	11-13-19	9-11-16	11-14-20	9-12-17	12-15-22	10-12-18	13-16-23
3RL	CFM/Side	42	35	56	47	70	59	84	70	98	82	113	94	127	106
	Throw (ft.)	6-9-14	4-6-11	8-12-17	5-8-13	10-13-19	7-10-15	12-14-21	8-11-16	13-16-22	10-12-17	14-17-24	11-13-19	14-18-25	11-14-20
4RT	CFM/Side	19	37	25	50	31	62	38	75	44	87	50	100	56	112
	Throw (ft.)	4-6-10	6-9-13	5-8-12	8-11-15	7-9-13	10-12-17	8-10-14	11-13-19	9-11-16	11-14-20	9-12-17	12-15-22	10-12-18	13-16-23

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x12	Total CFM	150		200		250		300		350		400		450	
	NC	7		15		21		26		30		33		36	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	150	0	200	0	250	0	300	0	350	0	400	0	450	0
	Throw (ft.)	12-14-21		14-17-24		15-19-27		17-21-29		18-22-32		19-24-34		21-25-36	
2RL, 2RS	CFM/Side	75	75	100	100	125	125	150	150	175	175	200	200	225	225
	Throw (ft.)	6-9-17	6-9-17	8-13-20	8-13-20	11-15-22	11-15-22	13-17-24	13-17-24	15-18-26	15-18-26	16-20-28	16-20-28	17-21-30	17-21-30
2CL, 2CR	CFM/Side	38	113	50	150	63	188	75	225	88	263	100	300	113	338
	Throw (ft.)	5-7-13	8-11-16	6-10-15	10-13-18	8-12-17	12-15-21	10-13-19	13-16-23	11-14-20	14-17-25	12-15-22	15-18-26	13-16-23	16-20-28
3RS	CFM/Side	19	66	25	88	31	110	38	131	44	153	50	175	56	197
	Throw (ft.)	5-7-12	7-11-15	6-9-14	9-12-18	8-11-15	11-14-20	9-12-17	12-15-22	10-13-18	13-16-23	11-14-19	14-18-25	12-14-21	15-19-27
3RL	CFM/Side	75	38	100	50	125	63	150	75	175	88	200	100	225	113
	Throw (ft.)	9-13-18	5-7-13	12-15-21	6-10-15	13-16-24	8-12-17	15-18-26	10-13-19	16-20-28	11-14-20	17-21-30	12-15-22	18-22-32	13-16-23
4RT	CFM/Side	19	56	25	75	31	94	38	113	44	131	50	150	56	169
	Throw (ft.)	5-7-12	7-11-15	6-9-14	9-12-18	8-11-15	11-14-20	9-12-17	12-15-22	10-13-18	13-16-23	11-14-19	14-18-25	12-14-21	15-19-27

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x15	Total CFM	188		250		313		375		438		500		563	
	NC	8		16		22		26		30		34		37	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	188	0	250	0	313	0	375	0	438	0	500	0	560	0
	Throw (ft.)	13-16-23		15-19-27		17-21-30		19-23-33		20-25-35		22-27-38		23-28-40	
2RL, 2RS	CFM/Side	94	94	125	125	156	156	188	188	219	219	250	250	281	281
	Throw (ft.)	7-11-19	7-11-19	9-14-22	9-14-22	12-17-25	12-17-25	14-19-27	14-19-27	17-20-29	17-20-29	18-22-31	18-22-31	19-23-33	19-23-33
2CL, 2CR	CFM/Side	38	150	50	200	63	250	75	300	88	350	100	400	113	450
	Throw (ft.)	5-8-15	9-12-18	7-11-17	12-15-21	9-13-19	13-16-23	11-15-21	15-18-25	13-16-23	16-19-28	14-17-24	17-21-30	15-18-26	18-22-31
3RS	CFM/Side	19	84	25	113	31	141	38	169	44	197	50	225	56	5253
	Throw (ft.)	5-8-13	8-12-17	7-11-15	11-14-20	9-12-17	13-15-22	11-13-19	14-17-24	11-14-20	15-18-26	12-15-22	16-20-28	13-16-23	17-21-30
3RL	CFM/Side	113	38	150	50	188	63	225	75	263	88	300	100	338	113
	Throw (ft.)	12-14-21	5-8-15	14-17-24	7-11-17	15-19-27	9-13-19	17-21-29	11-15-21	18-22-32	13-16-23	19-24-34	14-17-24	21-25-36	15-18-26
4RT	CFM/Side	19	75	25	100	31	125	38	150	44	175	50	200	56	225
	Throw (ft.)	5-8-13	8-12-17	7-11-15	11-14-20	9-12-17	13-15-22	11-13-19	14-17-24	11-14-20	15-18-26	12-15-22	16-20-28	13-16-23	17-21-30

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x18	Total CFM	225		300		375		450		525		600		675	
	NC	9		16		22		27		31		34		38	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	225	0	300	0	375	0	450	0	525	0	600	0	675	0
	Throw (ft.)	14-18-25		17-21-29		19-23-33		21-25-36		22-27-39		24-29-42		25-31-44	
2RL, 2RS	CFM/Side	113	113	150	150	188	188	225	225	263	263	300	300	338	338
	Throw (ft.)	8-12-21	8-12-21	10-16-24	10-16-24	13-19-27	13-19-27	16-21-30	16-21-30	18-22-32	18-22-32	20-24-34	20-24-34	21-26-36	21-26-36
2CL, 2CR	CFM/Side	38	187	50	250	63	312	75	375	88	437	100	500	113	562
	Throw (ft.)	6-9-16	10-14-20	8-12-19	13-16-23	10-15-21	15-18-25	12-16-23	16-20-28	14-17-25	17-21-30	15-19-27	18-23-32	16-20-28	20-24-34
3RS	CFM/Side	19	103	25	137	31	172	37	206	44	240	50	275	56	309
	Throw (ft.)	6-9-14	9-13-19	8-12-17	12-15-22	10-13-19	14-17-24	12-14-21	15-19-27	13-16-22	16-20-29	14-17-24	18-22-31	14-18-25	19-23-33
3RL	CFM/Side	150	38	200	50	250	63	300	75	350	88	400	100	450	113
	Throw (ft.)	13-16-23	6-9-16	15-18-26	8-12-19	17-21-29	10-15-21	18-23-32	12-16-23	20-24-35	14-17-25	21-26-37	15-19-27	23-28-39	16-20-28
4RT	CFM/Side	19	94	25	125	31	156	37	188	44	219	50	250	56	281
	Throw (ft.)	6-9-14	9-13-19	8-12-17	12-15-22	10-13-19	14-17-24	12-14-21	15-19-27	13-16-22	16-20-29	14-17-24	18-22-31	14-18-25	19-23-33

Notes:

- Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
- Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
- NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
- Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
- Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
- Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%.



ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x21	Total CFM	263		350		438		525		613		700		788	
	NC	9		17		23		27		31		35		38	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	263	0	350	0	438	0	525	0	613	0	700	0	788	0
	Throw (ft.)	16-19-27		18-22-32		20-25-35		22-27-39		24-30-42		26-32-45		27-34-48	
2RL, 2RS	CFM/Side	131	131	175	175	219	219	263	263	306	306	350	350	394	394
	Throw (ft.)	8-13-22	8-13-22	11-17-26	11-17-26	14-20-29	14-20-29	17-22-32	17-22-32	20-24-35	20-24-35	21-26-37	21-26-37	22-28-39	22-28-39
2CL, 2CR	CFM/Side	38	225	50	300	63	375	75	450	88	525	100	600	113	675
	Throw (ft.)	6-10-17	11-15-21	9-13-20	14-17-25	11-16-23	16-19-28	13-17-25	17-21-30	15-19-27	19-23-33	16-20-29	20-25-35	17-21-31	21-26-37
3RS	CFM/Side	19	122	25	162	31	203	37	244	43	284	50	325	56	365
	Throw (ft.)	6-10-16	9-14-20	8-13-18	13-16-23	11-14-20	15-18-26	13-16-22	16-20-29	14-17-24	18-22-31	15-18-26	19-23-33	16-19-27	20-25-35
3RL	CFM/Side	187	38	250	50	312	63	375	75	437	88	500	100	562	113
	Throw (ft.)	14-17-24	6-10-17	16-20-28	9-13-20	18-22-32	11-16-23	20-24-35	13-17-25	21-26-37	15-19-27	23-28-40	16-20-29	24-30-43	17-21-31
4RT	CFM/Side	19	113	25	150	31	188	37	225	43	263	50	300	56	338
	Throw (ft.)	6-10-16	9-14-20	8-13-18	13-16-23	11-14-20	15-18-26	13-16-22	16-20-29	14-17-24	18-22-31	15-18-26	19-23-33	16-19-27	20-25-35

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x24	Total CFM	300		400		500		600		700		800		900	
	NC	10		17		23		28		32		35		38	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	300	0	400	0	500	0	600	0	700	0	800	0	900	0
	Throw (ft.)	17-21-29		19-24-34		22-27-38		24-29-42		26-32-45		28-34-48		29-36-51	
2RL, 2RS	CFM/Side	150	150	200	200	250	250	300	300	350	350	400	400	450	450
	Throw (ft.)	9-14-24	9-14-24	12-18-28	12-18-28	15-22-31	15-22-31	18-24-34	18-24-34	21-26-37	21-26-37	23-28-40	23-28-40	24-30-42	24-30-42
2CL, 2CR	CFM/Side	38	263	50	350	63	438	75	525	88	613	100	700	113	788
	Throw (ft.)	7-10-19	12-16-23	9-14-22	15-18-26	12-17-24	17-21-30	14-19-27	18-23-32	16-20-29	20-25-35	18-22-31	21-26-37	19-23-33	23-28-40
3RS	CFM/Side	19	141	25	188	32	235	38	281	44	328	50	375	57	422
	Throw (ft.)	7-10-17	10-15-22	9-14-19	14-48-25	11-15-22	16-20-28	14-17-24	18-22-31	15-18-26	19-23-33	16-19-28	20-25-36	17-21-29	22-27-38
3RL	CFM/Side	225	38	300	50	375	63	450	75	525	88	600	100	675	113
	Throw (ft.)	15-18-26	7-10-19	17-21-30	9-14-22	19-24-34	12-17-24	21-26-37	14-19-27	23-28-40	16-20-29	25-30-43	18-22-31	26-32-46	19-23-33
4RT	CFM/Side	19	131	25	175	32	219	38	263	44	307	50	350	57	394
	Throw (ft.)	7-10-17	10-15-22	9-14-19	14-48-25	11-15-22	16-20-28	14-17-24	18-22-31	15-18-26	19-23-33	16-19-28	20-25-36	17-21-29	22-27-38

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
6x30	Total CFM	375		500		625		750		875		1000		1125	
	NC	10		18		24		29		33		36		39	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	375	0	500	0	625	0	750	0	875	0	1000	0	1125	0
	Throw (ft.)	19-23-33		22-27-38		24-30-42		27-33-47		29-35-50		31-38-54		33-40-57	
2RL, 2RS	CFM/Side	188	188	250	250	313	313	375	375	438	438	500	500	563	563
	Throw (ft.)	10-15-27	10-15-27	14-21-31	14-21-31	17-25-35	17-25-35	21-27-38	21-27-38	24-29-41	24-29-41	25-31-44	25-31-44	27-33-47	27-33-47
2CL, 2CR	CFM/Side	38	338	50	450	63	563	75	675	88	788	100	900	113	1013
	Throw (ft.)	8-12-21	13-18-25	10-16-24	17-21-30	13-19-27	19-23-33	16-21-30	21-25-36	18-23-32	22-28-39	20-24-35	24-30-42	21-26-37	25-31-45
3RS	CFM/Side	19	178	25	238	31	297	38	356	44	416	50	475	56	534
	Throw (ft.)	8-12-19	11-17-24	10-15-22	15-20-28	13-17-24	18-22-31	15-19-27	20-24-35	16-20-29	21-26-37	18-22-31	23-28-40	19-23-33	24-30-42
3RL	CFM/Side	300	38	400	50	500	63	600	75	700	88	800	100	900	113
	Throw (ft.)	16-21-29	8-12-21	19-24-34	10-16-24	22-27-38	13-19-27	24-29-42	16-21-30	26-32-45	18-23-32	28-34-48	20-24-35	29-36-51	21-26-37
4RT	CFM/Side	19	169	25	225	31	281	38	338	44	394	50	450	56	506
	Throw (ft.)	8-12-19	11-17-24	10-15-22	15-20-28	13-17-24	18-22-31	15-19-27	20-24-35	16-20-29	21-26-37	18-22-31	23-28-40	19-23-33	24-30-42

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x12	Total CFM	225		300		375		450		525		600		675	
	NC	9		16		22		27		31		34		38	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	225	0	300	0	375	0	450	0	525	0	600	0	675	0
	Throw (ft.)	14-18-25		17-21-29		19-23-33		21-25-36		22-27-39		24-29-42		25-31-44	
2RL, 2RS	CFM/Side	113	113	150	150	188	188	225	225	263	263	300	300	338	338
	Throw (ft.)	8-12-21	8-12-21	10-16-24	10-16-24	13-19-27	13-19-27	16-21-30	16-21-30	18-22-32	18-22-32	20-24-34	20-24-34	21-26-36	21-26-36
2CL, 2CR	CFM/Side	84	141	113	188	141	234	169	281	197	328	225	375	253	422
	Throw (ft.)	6-9-16	10-14-20	8-12-19	13-16-23	10-15-21	15-18-25	12-16-23	16-20-28	14-17-25	17-21-30	15-19-27	18-23-32	16-20-28	20-24-34
3RS	CFM/Side	42	91	56	122	71	152	85	183	99	213	113	244	127	274
	Throw (ft.)	6-9-14	9-13-19	8-12-17	12-15-22	10-13-19	14-17-24	12-14-21	15-19-27	13-16-22	16-20-29	14-17-24	18-22-31	14-18-25	19-23-33
3RL	CFM/Side	75	75	100	100	125	125	150	150	175	175	200	200	225	225
	Throw (ft.)	8-13-21	6-9-16	11-17-24	8-12-19	14-19-27	10-15-21	17-21-29	12-16-23	18-22-32	14-17-25	19-24-34	15-19-27	21-25-36	16-20-28
4RT	CFM/Side	42	70	56	94	71	117	85	141	99	164	113	188	127	211
	Throw (ft.)	6-9-14	9-13-19	8-12-17	12-15-22	10-13-19	14-17-24	12-14-21	15-19-27	13-16-22	16-20-29	14-17-24	18-22-31	14-18-25	19-23-33

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
3. NC is based upon 10dB room absorption (Re: 10¹² watts) evaluated at 125 through 4000 Hz octave bands.
4. Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
5. Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
6. Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%.



ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x15	Total CFM	281		375		469		563		656		750		844	
	NC	10		17		23		28		32		35		38	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	281	0	375	0	469	0	563	0	656	0	750	0	844	0
	Throw (ft.)	16-20-28		19-23-33		21-26-37		23-28-40		25-31-44		27-33-47		28-35-49	
2RL, 2RS	CFM/Side	141	141	188	188	234	234	281	281	328	328	375	375	422	422
	Throw (ft.)	9-13-23	9-13-23	12-18-27	12-18-27	15-21-30	15-21-30	18-23-33	18-23-33	20-25-36	20-25-36	22-27-38	22-27-38	23-29-41	23-29-41
2CL, 2CR	CFM/Side	84	197	113	263	141	328	169	394	197	459	225	525	253	591
	Throw (ft.)	7-10-18	11-15-22	9-14-21	15-18-25	11-16-23	16-20-29	14-18-26	18-22-31	16-20-28	19-24-34	17-21-30	21-25-36	18-22-32	22-27-38
3RS	CFM/Side	42	120	56	159	70	199	84	239	98	279	113	319	127	359
	Throw (ft.)	6-10-16	10-15-21	9-13-19	13-17-24	11-15-21	15-19-27	13-16-23	17-21-30	14-17-25	18-23-32	15-19-27	20-24-35	16-20-28	21-26-37
3RL	CFM/Side	117	82	156	110	195	137	235	164	274	192	313	219	352	246
	Throw (ft.)	9-14-23	7-10-18	13-19-27	9-14-21	16-21-30	11-16-23	19-23-33	14-18-26	20-25-36	16-20-28	22-27-38	17-21-30	23-28-40	18-22-32
4RT	CFM/Side	42	98	56	131	70	164	84	197	98	230	113	263	127	295
	Throw (ft.)	6-10-16	10-15-21	9-13-19	13-17-24	11-15-21	15-19-27	13-16-23	17-21-30	14-17-25	18-23-32	15-19-27	20-24-35	16-20-28	21-26-37

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x18	Total CFM	338		450		563		675		788		900		1013	
	NC	10		18		24		28		32		36		39	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	338	0	450	0	563	0	675	0	788	0	900	0	1013	0
	Throw (ft.)	18-22-31		21-25-36		23-28-40		25-31-44		27-34-48		29-36-51		31-38-54	
2RL, 2RS	CFM/Side	169	169	225	225	281	281	338	338	394	394	450	450	506	506
	Throw (ft.)	9-14-26	9-14-26	13-19-30	13-19-30	16-23-33	16-23-33	19-26-36	19-26-36	22-28-39	22-28-39	24-30-42	24-30-42	26-31-45	26-31-45
2CL, 2CR	CFM/Side	84	253	113	338	141	422	169	506	197	591	225	675	253	759
	Throw (ft.)	7-11-20	12-17-24	10-15-23	16-20-28	12-18-26	18-22-31	15-20-28	20-24-34	17-21-31	21-26-37	19-23-33	23-28-40	20-24-35	24-30-42
3RS	CFM/Side	42	148	56	197	70	246	84	296	98	345	113	394	127	443
	Throw (ft.)	7-11-18	11-16-23	10-14-21	14-19-27	12-16-23	17-21-30	14-18-25	19-23-33	16-19-27	20-25-35	17-21-29	22-27-38	18-22-31	23-28-40
3RL	CFM/Side	169	84	225	113	281	141	338	169	394	197	450	225	506	253
	Throw (ft.)	14-19-27	7-11-20	18-22-32	10-15-23	20-25-36	12-18-26	22-27-39	15-20-28	24-30-42	17-21-31	26-32-45	19-23-33	27-34-48	20-24-35
4RT	CFM/Side	42	127	56	169	70	211	84	253	98	295	113	338	127	380
	Throw (ft.)	7-11-18	11-16-23	10-14-21	14-19-27	12-16-23	17-21-30	14-18-25	19-23-33	16-19-27	20-25-35	17-21-29	22-27-38	18-22-31	23-28-40

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x21	Total CFM	394		525		656		788		909		1050		1181	
	NC	11		18		24		29		33		36		39	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	394	0	525	0	656	0	788	0	919	0	1050	0	1181	0
	Throw (ft.)	19-24-34		22-27-39		26-31-44		27-34-48		30-36-52		32-39-55		34-41-59	
2RL, 2RS	CFM/Side	197	197	263	263	328	328	394	394	459	459	525	525	591	591
	Throw (ft.)	10-16-28	10-16-28	14-21-32	14-21-32	17-25-36	17-25-36	21-28-39	21-28-39	24-30-42	24-30-42	26-32-45	26-32-45	28-34-48	28-34-48
2CL, 2CR	CFM/Side	84	309	113	412	141	516	169	619	197	722	225	825	253	928
	Throw (ft.)	8-12-21	13-18-26	11-16-25	17-21-30	13-20-28	19-24-34	16-21-31	21-26-37	19-23-33	23-28-40	20-25-35	25-30-43	21-26-38	26-32-46
3RS	CFM/Side	42	176	56	234	70	293	84	352	98	410	112	469	127	527
	Throw (ft.)	8-12-19	12-17-25	10-16-22	16-20-29	13-17-25	18-23-32	16-19-27	20-25-35	17-21-30	22-27-38	18-22-32	23-29-41	19-24-34	25-31-43
3RL	CFM/Side	225	84	300	113	375	141	450	169	525	197	600	225	675	253
	Throw (ft.)	17-21-30	8-12-21	20-24-35	11-16-25	22-27-39	13-20-28	24-30-43	16-21-31	26-32-46	19-23-33	28-35-49	20-25-35	30-37-52	21-26-38
4RT	CFM/Side	42	155	56	206	70	258	84	309	98	361	112	413	127	464
	Throw (ft.)	8-12-19	12-17-25	10-16-22	16-20-29	13-17-25	18-23-32	16-19-27	20-25-35	17-21-30	22-27-38	18-22-32	23-29-41	19-24-34	25-31-43

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x24	Total CFM	450		600		750		900		1050		1200		1350	
	NC	11		19		24		29		33		37		40	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	450	0	600	0	750	0	900	0	1050	0	1200	0	1350	0
	Throw (ft.)	21-25-36		24-29-42		27-33-47		29-36-51		32-39-55		34-42-59		36-44-63	
2RL, 2RS	CFM/Side	225	225	300	300	375	375	450	450	525	525	600	600	675	675
	Throw (ft.)	11-17-30	11-17-30	15-23-34	15-23-34	19-27-38	19-27-38	23-30-42	23-30-42	26-32-45	26-32-45	28-34-49	28-34-49	30-36-52	30-36-52
2CL, 2CR	CFM/Side	84	366	113	488	141	609	169	731	197	853	225	975	253	1097
	Throw (ft.)	8-13-23	14-20-28	11-17-27	18-23-32	14-21-30	21-25-36	17-23-33	23-28-40	20-25-35	25-30-43	22-27-38	26-32-46	23-28-40	28-34-49
3RS	CFM/Side	42	204	56	272	71	340	85	408	99	476	113	544	127	612
	Throw (ft.)	8-13-21	12-19-27	11-17-24	17-22-31	14-19-27	20-24-35	17-21-29	22-27-38	18-22-32	23-29-41	19-24-34	25-31-44	21-25-36	27-33-46
3RL	CFM/Side	281	84	375	113	469	141	563	169	656	197	750	225	844	253
	Throw (ft.)	8-23-32	8-13-23	21-26-37	11-17-27	24-29-42	14-21-30	26-32-46	17-23-33	28-35-49	20-25-35	30-37-53	22-27-38	32-39-56	23-28-40
4RT	CFM/Side	42	183	56	244	70	305	84	366	98	427	113	488	127	549
	Throw (ft.)	8-13-21	12-19-27	11-17-24	17-22-31	14-19-27	20-24-35	17-21-29	22-27-38	18-22-32	23-29-41	19-24-34	25-31-44	21-25-36	27-33-46

Notes:

- Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
- Units: Neck Velocity = fpm; Total Pressure (P_t) = in. wc;
- NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
- Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
- Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
- Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%..



ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x30	Total CFM	563		750		938		1125		1313		1500		1688	
	NC	12		19		25		30		34		37		41	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	563	0	750	0	938	0	1125	0	1313	0	1500	0	1688	0
	Throw (ft.)	23-28-40		27-33-47		30-37-52		33-40-57		35-44-62		38-47-66		40-49-70	
2RL, 2RS	CFM/Side	281	281	375	375	469	469	563	563	656	656	750	750	844	844
	Throw (ft.)	12-19-33	12-19-33	17-25-38	17-25-38	21-30-43	21-30-43	25-33-47	25-33-47	29-36-51	29-36-51	31-38-54	31-38-54	33-41-58	33-41-58
2CL, 2CR	CFM/Side	84	478	113	638	141	797	169	956	197	1116	225	1275	253	1434
	Throw (ft.)	9-14-26	16-22-31	13-19-30	21-25-36	16-23-33	23-29-41	19-26-37	25-31-45	23-28-40	28-34-48	24-30-42	30-36-51	26-32-45	31-38-55
3RS	CFM/Side	42	260	56	347	70	434	84	520	98	607	113	694	127	780
	Throw (ft.)	9-14-33	14-21-30	13-19-27	19-24-35	16-21-30	22-27-39	19-23-33	24-30-42	20-25-35	26-32-46	22-27-38	28-35-49	23-28-40	30-37-52
3RL	CFM/Side	394	84	525	113	656	141	788	169	919	197	1050	225	1181	253
	Throw (ft.)	20-25-36	9-14-26	24-29-42	13-19-30	27-33-46	16-23-33	29-36-51	19-26-37	32-39-55	23-28-40	34-42-59	24-30-42	36-44-63	26-32-45
4RT	CFM/Side	42	239	56	319	70	398	84	478	98	558	113	638	127	717
	Throw (ft.)	9-14-23	14-21-30	13-19-27	19-24-35	16-21-30	22-27-39	19-23-33	24-30-42	20-25-35	26-32-46	22-27-38	28-35-49	23-28-40	30-37-42

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
9x36	Total CFM	675		900		1125		1350		1575		1800		2025	
	NC	12		20		26		31		35		38		41	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	675	0	900	0	1125	0	1350	0	1575	0	1800	0	2025	0
	Throw (ft.)	25-31-44		29-36-51		33-40-57		36-44-63		39-48-68		42-51-72		44-54-77	
2RL, 2RS	CFM/Side	338	338	450	450	563	563	675	675	788	788	900	900	1013	1013
	Throw (ft.)	14-21-36	14-21-36	18-28-42	18-28-42	23-33-47	23-33-47	28-36-52	28-36-52	32-39-56	32-39-56	34-42-60	34-42-60	36-45-63	36-45-63
2CL, 2CR	CFM/Side	84	591	113	788	141	984	169	1181	197	1378	225	1575	253	1772
	Throw (ft.)	10-16-28	18-24-34	14-21-33	23-28-40	18-26-37	25-31-45	21-28-40	28-34-49	25-31-43	30-37-53	27-33-46	32-40-56	28-35-49	34-42-60
3RS	CFM/Side	42	316	56	422	70	527	84	633	98	738	113	844	127	949
	Throw (ft.)	10-16-25	15-23-33	14-21-29	21-27-38	17-23-33	24-30-42	21-25-36	27-33-46	22-27-39	29-35-50	24-29-42	31-38-54	25-31-44	33-40-57
3RL	CFM/Side	506	84	675	113	844	141	1013	169	1181	197	1350	225	1519	253
	Throw (ft.)	22-28-39	10-16-28	26-32-46	14-21-33	29-36-51	18-26-37	32-39-56	21-28-40	35-43-60	25-31-43	37-46-65	27-33-46	39-48-69	28-35-49
4RT	CFM/Side	42	295	56	394	70	492	84	591	98	689	113	788	127	886
	Throw (ft.)	10-16-25	15-23-33	14-21-29	21-27-38	17-23-33	24-30-42	21-25-36	27-33-46	22-27-39	29-35-50	24-29-42	31-38-54	25-31-44	33-40-57

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
12x15	Total CFM	375		500		625		750		875		1000		1125	
	NC	10		18		24		29		33		36		39	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	375	0	500	0	625	0	750	0	875	0	1000	0	1125	0
	Throw (ft.)	19-23-33		22-27-38		24-30-42		27-33-47		29-35-50		31-38-54		33-40-57	
2RL, 2RS	CFM/Side	188	188	250	250	313	313	375	375	438	438	500	500	563	563
	Throw (ft.)	10-15-27	10-15-27	14-21-31	14-21-31	17-25-35	17-25-35	21-27-38	21-27-38	24-29-41	24-29-41	25-31-44	25-31-44	27-33-47	27-33-47
2CL, 2CR	CFM/Side	150	225	200	300	250	375	300	450	350	525	400	600	450	675
	Throw (ft.)	8-12-21	13-18-25	10-16-24	17-21-30	13-19-27	19-23-33	16-21-30	21-25-36	18-23-32	22-28-39	20-24-35	24-30-42	21-26-37	25-31-45
3RS	CFM/Side	75	150	100	200	125	250	150	300	175	350	200	400	225	450
	Throw (ft.)	8-12-19	11-17-24	10-15-22	15-20-28	13-17-24	18-22-31	15-19-27	20-24-35	16-20-29	21-26-37	18-22-31	23-28-40	19-23-33	24-30-42
3RL	CFM/Side	117	129	156	172	195	215	234	258	273	301	313	344	352	387
	Throw (ft.)	11-17-27	8-12-21	15-22-31	10-16-24	18-24-35	13-19-27	22-27-38	16-21-30	24-29-41	18-23-32	25-31-44	20-24-35	27-33-47	21-26-37
4RT	CFM/Side	75	113	100	150	125	188	150	225	175	263	200	300	225	338
	Throw (ft.)	8-12-19	11-17-24	10-15-22	15-20-28	13-17-24	18-22-31	15-19-27	20-24-35	16-20-29	21-26-37	18-22-31	23-28-40	19-23-33	24-30-42

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
12x18	Total CFM	450		600		750		900		1050		1200		1350	
	NC	11		19		24		29		33		37		40	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	450	0	600	0	750	0	900	0	1050	0	1200	0	1350	0
	Throw (ft.)	21-25-36		24-29-42		27-33-47		29-36-51		32-39-55		34-42-59		36-44-63	
2RL, 2RS	CFM/Side	225	225	300	300	375	375	450	450	525	525	600	600	675	675
	Throw (ft.)	11-17-30	11-17-30	15-23-34	15-23-34	19-27-38	19-27-38	23-30-42	23-30-42	26-32-45	26-32-45	28-34-49	28-34-49	30-36-52	30-36-52
2CL, 2CR	CFM/Side	150	300	200	400	250	500	300	600	350	700	400	800	450	900
	Throw (ft.)	8-13-23	14-20-28	11-17-27	18-23-32	14-21-30	21-25-36	17-23-33	23-28-40	20-25-35	25-30-43	22-27-38	26-32-46	23-28-40	28-34-49
3RS	CFM/Side	75	188	100	250	125	313	150	375	175	438	200	500	225	563
	Throw (ft.)	8-13-21	12-19-27	11-17-24	17-22-31	14-19-27	20-24-35	17-21-29	22-27-38	18-22-32	23-29-41	19-24-34	25-31-44	21-25-36	27-33-46
3RL	CFM/Side	169	141	225	188	281	234	338	281	394	328	450	375	506	422
	Throw (ft.)	12-18-29	8-13-23	16-24-34	11-17-27	20-27-38	14-21-30	24-29-42	17-23-33	26-32-45	20-25-35	28-34-48	22-27-38	29-36-51	23-28-40
4RT	CFM/Side	75	150	100	200	125	250	150	300	175	350	200	400	225	450
	Throw (ft.)	8-13-21	12-19-27	11-17-24	17-22-31	14-19-27	20-24-35	17-21-29	22-27-38	18-22-32	23-29-41	19-24-34	25-31-44	21-25-36	27-33-46

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
3. NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
4. Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
5. Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
6. Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%.

ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
12x21	Total CFM	525		700		875		1050		1225		1400		1575	
	NC	12		19		25		30		34		37		40	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	525	0	700	0	875	0	1050	0	1225	0	1400	0	1575	0
	Throw (ft.)	22-27-39		26-32-45		29-35-50		32-39-55		34-42-60		37-45-64		39-48-68	
2RL, 2RS	CFM/Side	263	263	350	350	438	438	525	525	613	613	700	700	788	788
	Throw (ft.)	12-18-32	12-18-32	16-24-37	16-24-37	20-29-41	20-29-41	24-32-45	24-32-45	28-35-49	28-35-49	30-37-53	30-37-53	32-39-56	32-39-56
2CL, 2CR	CFM/Side	150	375	200	500	250	625	300	750	350	875	400	1000	450	1125
	Throw (ft.)	9-14-25	15-21-30	12-19-29	20-25-35	16-23-32	22-28-39	19-25-35	25-30-43	22-27-38	27-33-46	23-29-41	28-35-50	25-31-43	30-37-53
3RS	CFM/Side	75	225	100	300	125	375	150	450	175	525	200	600	225	675
	Throw (ft.)	9-14-22	13-20-29	12-18-26	18-23-33	15-20-29	21-26-37	18-22-32	23-29-41	20-24-34	25-31-44	21-26-37	27-33-47	22-27-39	29-35-50
3RL	CFM/Side	230	148	306	197	383	246	459	295	536	345	613	394	689	443
	Throw (ft.)	13-20-32	9-14-25	17-26-37	12-19-29	22-29-41	16-23-32	26-32-45	19-25-35	28-34-49	22-27-38	30-37-52	23-29-41	32-39-55	25-31-43
4RT	CFM/Side	75	187	100	250	125	312	150	375	175	437	200	500	225	562
	Throw (ft.)	9-14-22	13-20-29	12-18-26	18-23-33	15-20-29	21-26-37	18-22-32	23-29-41	20-24-34	25-31-44	21-26-37	27-33-47	22-27-39	29-35-50

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
12x24	Total CFM	600		800		1000		1200		1400		1600		1800	
	NC	12		20		25		30		34		38		41	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	600	0	800	0	1000	0	1200	0	1400	0	1600	0	1800	0
	Throw (ft.)	24-29-42		28-34-48		31-38-54		34-42-59		37-45-64		39-48-68		42-51-72	
2RL, 2RS	CFM/Side	300	300	400	400	500	500	600	600	700	700	800	800	900	900
	Throw (ft.)	13-19-34	13-19-34	17-26-40	17-26-40	22-31-44	22-31-44	26-34-49	26-34-49	30-37-53	30-37-53	32-40-56	32-40-56	34-42-60	34-42-60
2CL, 2CR	CFM/Side	150	450	200	600	250	750	300	900	350	1050	400	1200	450	1350
	Throw (ft.)	10-15-27	16-23-32	13-20-31	21-26-37	17-24-35	24-30-42	20-27-38	26-32-46	23-29-41	28-35-50	25-31-44	30-37-53	27-33-46	32-40-56
3RS	CFM/Side	75	263	100	350	125	438	150	525	175	613	200	700	225	788
	Throw (ft.)	10-15-24	14-22-31	13-19-28	19-25-36	16-22-31	23-28-40	19-24-34	25-31-44	21-26-37	27-33-47	22-28-39	29-36-51	24-29-42	31-38-54
3RL	CFM/Side	300	150	400	200	500	250	600	300	700	350	800	400	900	450
	Throw (ft.)	19-26-37	10-15-27	24-30-43	13-20-31	27-33-48	17-24-35	30-37-52	20-27-38	32-40-56	23-29-41	35-43-60	25-31-44	37-45-64	27-33-46
4RT	CFM/Side	75	225	100	300	125	375	150	450	175	525	200	600	225	675
	Throw (ft.)	10-15-24	14-22-31	13-19-28	19-25-36	16-22-31	23-28-40	19-24-34	25-31-44	21-26-37	27-33-47	22-28-39	29-36-51	24-29-42	31-38-54

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
12x30	Total CFM	750		1000		1250		1500		1750		2000		2250	
	NC	13		20		26		31		35		38		41	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	750	0	1000	0	1250	0	1500	0	1750	0	2000	0	2250	0
	Throw (ft.)	27-33-47		31-38-54		35-42-60		38-47-66		41-50-71		44-54-76		47-57-81	
2RL, 2RS	CFM/Side	375	375	500	500	625	625	750	750	875	875	1000	1000	1125	1125
	Throw (ft.)	14-22-38	14-22-38	19-29-44	19-29-44	24-35-50	24-35-50	29-38-52	29-38-52	34-41-59	34-41-59	36-44-63	36-44-63	38-47-67	38-47-67
2CL, 2CR	CFM/Side	150	600	200	800	250	1000	300	1200	350	1400	400	1600	450	1800
	Throw (ft.)	11-17-30	18-25-36	15-22-35	24-30-42	19-27-39	27-33-47	22-30-42	30-36-51	26-32-46	32-39-56	28-35-49	34-42-60	30-37-52	36-45-63
3RS	CFM/Side	75	338	100	450	125	563	150	675	175	788	200	900	225	1013
	Throw (ft.)	11-17-30	16-24-35	15-22-31	22-28-40	18-24-35	26-31-45	22-27-38	28-35-49	23-29-41	30-37-53	25-31-44	33-40-57	27-33-47	35-42-60
3RL	CFM/Side	450	150	600	200	750	250	900	300	1050	350	1200	400	1350	450
	Throw (ft.)	24-29-42	11-17-30	28-34-48	15-22-35	31-38-54	19-27-39	34-42-59	22-30-42	37-45-64	26-32-46	39-48-68	28-35-49	42-51-72	30-37-52
4RT	CFM/Side	75	300	100	400	125	500	150	600	175	700	200	800	225	900
	Throw (ft.)	11-16-27	16-24-35	15-22-31	22-28-40	18-24-35	26-31-45	22-27-38	28-35-49	23-29-41	30-37-53	25-31-44	33-40-57	27-33-47	35-42-60

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
12x36	Total CFM	900		1200		1500		1800		2100		2400		2700	
	NC	13		21		27		31		36		39		42	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	900	0	1200	0	1500	0	1800	0	2100	0	2400	0	2700	0
	Throw (ft.)	29-36-51		34-42-59		38-47-66		42-51-72		45-55-78		48-59-84		51-63-89	
2RL, 2RS	CFM/Side	450	450	600	600	750	750	900	900	1050	1050	1200	1200	1350	1350
	Throw (ft.)	16-24-42	16-24-42	21-32-49	21-32-49	27-38-54	27-38-54	32-42-60	32-42-60	37-45-64	37-45-64	40-49-69	40-49-69	42-52-73	42-52-73
2CL, 2CR	CFM/Side	150	750	200	1000	250	1250	300	1500	350	1750	400	2000	450	2250
	Throw (ft.)	12-18-33	20-28-40	16-25-38	26-32-46	20-30-42	30-36-51	25-33-46	32-40-56	29-35-50	35-43-61	31-38-54	37-46-65	33-40-57	40-49-69
3RS	CFM/Side	75	412	100	550	125	687	150	825	175	962	200	1100	225	1237
	Throw (ft.)	12-18-29	18-27-38	16-24-34	24-31-44	20-27-38	28-35-49	24-29-42	31-38-54	26-32-45	33-41-58	28-34-48	36-44-62	29-36-51	38-46-66
3RL	CFM/Side	600	150	800	200	1000	250	1200	300	1400	350	1600	400	1800	450
	Throw (ft.)	26-32-46	12-18-33	30-37-53	16-25-38	34-42-59	20-30-42	37-46-65	25-33-46	40-49-70	29-35-50	43-53-75	31-38-54	46-56-79	33-40-57
4RT	CFM/Side	75	375	100	500	125	625	149	750	174	875	199	1000	224	1125
	Throw (ft.)	12-18-29	18-27-38	16-24-34	24-31-44	20-27-38	28-35-49	24-29-42	31-38-54	26-32-45	33-41-58	28-34-48	36-44-62	29-36-51	38-46-66

Notes:

- Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
- Units: Neck Velocity = fpm; Total Pressure (P_t) = in. wc;
- NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
- Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.



ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
15x18	Total CFM	563		750		938		1125		1313		1500		1688	
	NC	12		19		25		30		34		37		41	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	563	0	750	0	938	0	1125	0	1313	0	1500	0	1688	0
	Throw (ft.)	23-28-40		27-33-47		30-37-52		33-40-57		35-44-62		38-47-66		40-49-70	
2RL, 2RS	CFM/Side	281	281	375	375	469	469	563	563	656	656	750	750	844	844
	Throw (ft.)	12-19-33	12-19-33	17-25-38	17-25-38	21-30-43	21-30-43	25-33-47	25-33-47	29-36-51	29-36-51	31-38-54	31-38-54	33-41-58	33-41-58
2CL, 2CR	CFM/Side	234	328	313	437	391	547	469	656	547	766	625	875	703	984
	Throw (ft.)	9-14-26	16-22-31	13-19-30	21-25-36	16-23-33	23-29-41	19-26-37	25-31-45	23-28-40	28-34-48	24-30-42	30-36-51	26-32-45	31-38-55
3RS	CFM/Side	117	223	156	297	195	371	234	445	273	519	312	594	352	668
	Throw (ft.)	9-14-23	14-21-30	13-19-27	19-24-35	16-21-30	22-27-39	19-23-33	24-30-42	20-25-35	26-32-46	22-27-38	28-35-49	23-28-40	30-37-52
3RL	CFM/Side	169	197	225	263	281	328	338	394	394	459	450	525	506	591
	Throw (ft.)	13-20-33	9-14-26	18-27-38	13-19-30	23-30-43	16-23-33	27-33-47	19-26-37	29-36-50	23-28-40	31-38-54	24-30-42	33-40-57	26-32-45
4RT	CFM/Side	117	164	156	219	195	273	234	328	273	383	312	438	352	492
	Throw (ft.)	9-14-23	14-21-30	13-19-27	19-24-35	16-21-30	22-27-39	19-23-33	24-30-42	20-25-35	26-32-46	22-27-38	28-35-49	23-28-40	30-37-52
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
15x21	Total CFM	656		875		1094		1313		1531		1750		1969	
	NC	12		20		26		30		34		38		41	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	656	0	875	0	1094	0	1313	0	1531	0	1750	0	1969	0
	Throw (ft.)	25-31-44		29-35-50		32-40-56		35-44-62		38-47-67		41-50-71		44-53-76	
2RL, 2RS	CFM/Side	328	328	438	438	547	547	656	656	766	766	875	875	984	984
	Throw (ft.)	13-20-36	13-20-36	18-27-41	18-27-41	23-33-46	23-33-46	27-36-51	27-36-51	32-39-55	32-39-55	34-41-59	34-41-59	36-44-62	36-44-62
2CL, 2CR	CFM/Side	234	422	312	563	391	703	469	844	547	984	625	1125	703	1266
	Throw (ft.)	10-16-28	17-24-34	14-21-32	22-28-39	17-25-36	25-31-44	21-28-40	28-34-48	25-30-43	30-37-52	26-32-46	32-39-56	28-34-49	34-42-59
3RS	CFM/Side	117	270	156	359	195	449	234	539	273	629	313	719	352	809
	Throw (ft.)	10-15-25	15-23-32	14-20-29	20-26-37	17-23-32	24-29-42	20-25-35	26-32-46	22-27-38	28-35-50	23-29-41	30-37-53	25-31-43	32-40-56
3RL	CFM/Side	230	213	306	284	383	355	459	427	536	498	613	569	689	640
	Throw (ft.)	14-22-36	10-16-28	19-29-41	14-21-32	24-32-46	17-25-36	29-36-50	21-28-40	31-38-55	25-30-43	33-41-58	26-32-46	36-44-62	28-34-49
4RT	CFM/Side	117	211	156	281	195	352	234	422	273	492	313	562	352	633
	Throw (ft.)	10-15-25	15-23-32	14-20-29	20-26-37	17-23-32	24-29-42	20-25-35	26-32-46	22-27-38	28-35-50	23-29-41	30-37-53	25-31-43	32-40-56
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
15x24	Total CFM	750		1000		1250		1500		1750		2000		2250	
	NC	13		20		26		31		35		38		41	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	750	0	1000	0	1250	0	1500	0	1750	0	2000	0	2250	0
	Throw (ft.)	27-33-47		31-38-54		35-42-60		38-47-66		41-50-71		44-54-76		47-57-81	
2RL, 2RS	CFM/Side	375	375	500	500	625	625	750	750	875	875	1000	1000	1125	1125
	Throw (ft.)	14-22-38	14-22-38	19-29-44	19-29-44	24-35-50	24-35-50	29-38-52	29-38-52	34-41-59	34-41-59	36-44-63	36-44-63	38-47-67	38-47-67
2CL, 2CR	CFM/Side	234	516	313	688	391	859	469	1031	547	1203	625	1375	703	1547
	Throw (ft.)	11-17-30	18-25-36	15-22-35	24-30-42	19-27-39	27-33-47	22-30-42	30-36-51	26-32-46	32-39-56	28-35-49	34-42-60	30-37-52	36-45-63
3RS	CFM/Side	117	316	156	422	195	527	234	633	274	738	313	844	352	949
	Throw (ft.)	11-16-27	16-24-35	15-22-31	22-28-40	18-24-35	26-31-45	22-27-38	28-35-49	23-29-41	30-37-53	25-31-44	33-40-57	27-33-47	35-42-60
3RL	CFM/Side	300	225	400	300	500	375	600	450	700	525	800	600	900	675
	Throw (ft.)	16-24-38	11-17-30	21-31-44	15-22-35	26-35-49	19-27-39	31-38-54	22-30-42	33-41-58	26-32-46	36-44-62	28-35-49	38-47-66	30-37-52
4RT	CFM/Side	117	258	156	344	195	430	234	516	274	602	313	688	352	774
	Throw (ft.)	11-16-27	16-24-35	15-22-31	22-28-40	18-24-35	26-31-45	22-27-38	28-35-49	23-29-41	30-37-53	25-31-44	33-40-57	27-33-47	35-42-60
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
15x30	Total CFM	938		1250		1563		1875		2188		2500		2813	
	NC	13		21		27		32		36		39		42	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	938	0	1250	0	1563	0	1875	0	2188	0	2500	0	2813	0
	Throw (ft.)	30-37-52		35-42-60		39-48-67		42-52-74		46-56-80		49-60-85		52-64-91	
2RL, 2RS	CFM/Side	469	469	625	625	781	781	938	938	1094	1094	1250	1250	1406	1406
	Throw (ft.)	16-24-43	16-24-43	22-33-50	22-33-50	27-39-56	27-39-56	33-43-61	33-43-61	38-46-66	38-46-66	40-50-70	40-50-70	43-53-75	43-53-75
2CL, 2CR	CFM/Side	234	703	313	938	391	1172	469	1406	547	1641	625	1875	703	2109
	Throw (ft.)	12-19-33	21-29-41	17-25-39	27-33-47	21-30-43	30-37-53	25-33-47	33-41-58	29-36-51	36-44-62	31-39-55	38-47-67	33-41-58	41-50-71
3RS	CFM/Side	117	410	156	547	195	684	234	820	273	957	313	1094	352	1230
	Throw (ft.)	12-18-30	18-27-39	16-24-35	24-31-45	21-27-39	29-35-50	24-30-42	31-39-55	26-32-46	34-42-59	28-35-49	36-45-63	30-37-52	39-47-67
3RL	CFM/Side	469	234	625	313	781	391	938	469	1094	547	1250	625	1406	703
	Throw (ft.)	24-32-46	12-19-33	31-38-53	17-25-39	34-42-60	21-30-43	38-46-65	25-33-47	41-50-71	29-36-51	43-53-76	31-39-55	46-57-80	33-41-58
4RT	CFM/Side	117	352	156	469	195	586	234	703	273	820	313	938	352	1055
	Throw (ft.)	12-18-30	18-27-39	16-24-35	24-31-45	21-27-39	29-35-50	24-30-42	31-39-55	26-32-46	34-42-59	28-35-49	36-45-63	30-37-52	39-47-67

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
3. NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
4. Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
5. Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
6. Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%..

ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
15x36	Total CFM	1125		1500		1875		2250		2625		3000		3375	
	NC	14		22		27		32		36		40		43	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1125	0	1500	0	1875	0	2250	0	2625	0	3000	0	3375	0
	Throw (ft.)	33-40-57		38-47-66		42-52-74		47-57-81		50-62-88		54-66-94		57-70-99	
2RL, 2RS	CFM/Side	563	563	750	750	938	938	1125	1125	1313	1313	1500	1500	1688	1688
	Throw (ft.)	18-27-47	18-27-47	24-36-54	24-36-54	30-43-61	30-43-61	36-47-67	36-47-67	41-51-72	41-51-72	44-54-77	44-54-77	47-58-82	47-58-82
2CL, 2CR	CFM/Side	234	891	312	1188	391	1484	469	1781	547	2078	625	2375	703	2672
	Throw (ft.)	14-21-37	23-31-45	18-28-42	30-36-51	23-33-47	33-41-58	28-37-52	36-45-63	32-40-56	39-48-68	35-42-60	42-51-73	37-45-64	45-55-77
3RS	CFM/Side	117	504	156	672	195	840	234	1008	274	1176	313	1344	352	1512
	Throw (ft.)	13-20-33	20-30-42	18-27-38	27-35-49	23-30-42	31-39-55	27-33-47	35-42-60	29-35-50	37-46-65	31-38-54	40-49-70	33-40-57	42-52-74
3RL	CFM/Side	656	234	875	312	1094	391	1312	469	1531	547	1750	625	1969	703
	Throw (ft.)	29-36-51	14-21-37	34-42-59	18-28-42	38-46-66	23-33-47	42-51-72	28-37-52	45-55-78	32-40-56	48-59-84	35-42-60	51-63-89	37-45-64
4RT	CFM/Side	117	445	156	594	195	742	234	891	274	1039	313	1187	352	1336
	Throw (ft.)	13-20-33	20-30-42	18-27-38	27-35-49	23-30-42	31-39-55	27-33-47	35-42-60	29-35-50	37-46-65	31-38-54	40-49-70	33-40-57	42-52-74

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
18x21	Total CFM	788		1050		1313		1575		1838		2100		2363	
	NC	13		20		26		31		35		39		42	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	788	0	1050	0	1313	0	1575	0	1838	0	2100	0	2363	0
	Throw (ft.)	27-34-48		32-39-55		35-44-62		39-48-68		42-52-73		45-55-78		48-59-83	
2RL, 2RS	CFM/Side	394	394	525	525	656	656	788	788	919	919	1050	1050	1181	1181
	Throw (ft.)	15-22-39	15-22-39	20-30-45	20-30-45	25-36-51	25-36-51	30-39-56	30-39-56	35-42-60	35-42-60	37-45-64	37-45-64	39-48-68	39-48-68
2CL, 2CR	CFM/Side	338	450	450	600	563	750	675	900	788	1050	900	1200	1013	1350
	Throw (ft.)	11-17-31	19-26-37	15-23-35	25-30-43	19-28-40	28-34-48	23-31-43	30-37-53	27-33-47	33-40-57	29-35-50	35-43-61	31-38-53	37-46-65
3RS	CFM/Side	169	309	225	413	281	516	337	619	393	722	449	825	506	928
	Throw (ft.)	11-17-27	17-25-35	15-22-32	22-29-41	19-25-35	26-32-46	22-27-39	29-35-50	24-30-42	31-38-54	26-32-45	33-41-58	27-34-48	35-43-62
3RL	CFM/Side	230	279	307	372	383	465	460	558	537	650	613	743	690	836
	Throw (ft.)	16-24-39	11-17-31	21-32-45	15-23-35	27-36-50	19-28-40	32-39-55	23-31-43	34-42-60	27-33-47	37-45-64	29-35-50	39-48-68	31-38-53
4RT	CFM/Side	169	225	225	300	281	375	337	450	393	526	449	601	506	676
	Throw (ft.)	11-17-27	17-25-35	15-22-32	22-29-41	19-25-35	26-32-46	22-27-39	29-35-50	24-30-42	31-38-54	26-32-45	33-41-58	27-34-48	35-43-62

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
18x24	Total CFM	900		1200		1500		1800		2100		2400		2700	
	NC	13		21		27		31		36		39		42	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	900	0	1200	0	1500	0	1800	0	2100	0	2400	0	2700	0
	Throw (ft.)	29-36-51		34-42-59		38-47-66		42-51-72		45-55-78		48-59-84		51-63-89	
2RL, 2RS	CFM/Side	450	450	600	600	750	750	900	900	1050	1050	1200	1200	1350	1350
	Throw (ft.)	16-24-42	16-24-42	21-32-49	21-32-49	27-38-54	27-38-54	32-42-60	32-42-60	37-45-64	37-45-64	40-49-69	40-49-69	42-52-73	42-52-73
2CL, 2CR	CFM/Side	338	563	450	750	563	938	675	1125	788	1313	900	1500	1013	1688
	Throw (ft.)	12-18-33	20-28-40	16-25-38	26-32-46	20-30-42	30-36-51	25-33-46	32-40-56	29-35-50	35-43-61	31-38-54	37-46-65	33-40-57	40-49-69
3RS	CFM/Side	169	365	226	487	282	609	338	731	395	853	451	974	508	1096
	Throw (ft.)	12-18-29	18-27-38	16-24-34	24-31-44	20-27-38	28-35-49	24-29-42	31-38-54	26-32-45	33-41-58	28-34-48	36-44-62	29-36-51	38-46-66
3RL	CFM/Side	300	300	400	400	500	500	599	599	699	699	799	799	899	899
	Throw (ft.)	17-26-42	12-18-33	23-34-48	16-25-38	29-38-54	20-30-42	34-42-59	25-33-46	37-45-64	29-35-50	39-48-68	31-38-54	42-51-73	33-40-57
4RT	CFM/Side	169	282	226	376	282	470	338	563	395	657	451	751	508	845
	Throw (ft.)	12-18-29	18-27-38	16-24-34	24-31-44	20-27-38	28-35-49	24-29-42	31-38-54	26-32-45	33-41-58	28-34-48	36-44-62	29-36-51	38-46-66

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
18x30	Total CFM	1125		1500		1875		2250		2625		3000		3375	
	NC	14		22		27		32		36		40		43	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1125	0	1500	0	1875	0	2250	0	2625	0	3000	0	3375	0
	Throw (ft.)	33-40-57		38-47-66		42-52-74		47-57-81		50-62-88		54-66-94		57-70-99	
2RL, 2RS	CFM/Side	563	563	750	750	938	938	1125	1125	1313	1313	1500	1500	1688	1688
	Throw (ft.)	18-27-47	18-27-47	24-36-54	24-36-54	30-43-61	30-43-61	36-47-67	36-47-67	41-51-72	41-51-72	44-54-77	44-54-77	47-58-82	47-58-82
2CL, 2CR	CFM/Side	234	788	450	1050	563	1313	675	1575	788	1838	900	2100	1013	2363
	Throw (ft.)	14-21-37	23-31-45	18-28-42	30-36-51	23-33-47	33-41-58	28-37-52	36-45-63	32-40-56	39-48-68	35-42-60	42-51-73	37-45-64	45-55-77
3RS	CFM/Side	169	478	225	638	281	797	338	956	394	1116	450	1275	506	1434
	Throw (ft.)	13-20-33	20-30-42	18-27-38	27-35-49	23-30-42	31-39-55	27-33-47	35-42-60	29-35-50	37-46-65	31-38-54	40-49-70	33-40-57	42-52-74
3RL	CFM/Side	469	329	626	438	782	548	938	657	1095	767	1251	876	1407	986
	Throw (ft.)	19-29-47	14-21-37	26-38-54	18-28-42	32-43-60	23-33-47	38-47-66	28-37-52	41-50-72	32-40-56	44-54-76	35-42-60	47-57-81	37-45-64
4RT	CFM/Side	169	394	225	525	281	656	338	788	394	919	450	1050	506	1181
	Throw (ft.)	13-20-33	20-30-42	18-27-38	27-35-49	23-30-42	31-39-55	27-33-47	35-42-60	29-35-50	37-46-65	31-38-54	40-49-70	33-40-57	42-52-74

Notes:

- Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
- Units: Neck Velocity = fpm; Total Pressure (P_t) = in. wc;
- NC is based upon 10dB room absorption (Re: 10⁻¹²



ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
18x36	Total CFM	1350		1800		2250		2700		3150		3600		4050	
	NC	15		22		28		33		37		40		43	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1350		1800		2250		2700		3150		3600		4050	
	Throw (ft.)	36-44-63		42-51-72		47-57-81		51-63-89		55-68-96		59-72-103		63-77-109	
2RL, 2RS	CFM/Side	675		900		1125		1350		1575		1800		2025	
	Throw (ft.)	19-29-52		26-39-60		33-47-67		39-52-73		45-56-79		49-60-85		52-63-90	
2CL, 2CR	CFM/Side	338		450		563		675		788		900		1013	
	Throw (ft.)	15-23-40		20-30-46		25-37-52		30-40-57		35-43-62		38-46-66		40-49-70	
3RS	CFM/Side	169		225		281		338		394		450		506	
	Throw (ft.)	15-22-36		20-29-42		25-33-47		30-36-51		35-43-62		41-50-71		44-54-76	
3RL	CFM/Side	675		900		1125		1350		1575		1800		2025	
	Throw (ft.)	28-39-55		37-45-64		41-50-72		45-55-78		49-60-85		52-64-91		55-68-96	
4RT	CFM/Side	169		225		281		338		394		450		506	
	Throw (ft.)	15-22-36		20-29-42		25-33-47		30-36-51		35-43-62		41-50-71		44-54-76	
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
21x24	Total CFM	1050		1400		1750		2100		2450		2800		3150	
	NC	14		21		27		32		36		40		43	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1050		1400		1750		2100		2450		2800		3150	
	Throw (ft.)	32-39-55		37-45-64		41-50-71		45-55-78		49-60-85		52-64-90		55-68-96	
2RL, 2RS	CFM/Side	525		700		875		1050		1225		1400		1575	
	Throw (ft.)	17-26-45		23-35-53		29-41-59		35-45-64		40-49-70		43-53-74		45-56-79	
2CL, 2CR	CFM/Side	459		613		766		919		1072		1225		1378	
	Throw (ft.)	13-20-35		18-27-41		22-32-46		27-35-50		31-38-54		34-46-66		35-43-62	
3RS	CFM/Side	230		307		383		460		537		613		690	
	Throw (ft.)	13-20-32		19-29-41		22-29-41		30-37-53		26-32-45		33-41-58		39-47-67	
3RL	CFM/Side	300		400		500		600		700		800		900	
	Throw (ft.)	18-28-45		25-37-52		31-41-58		37-45-64		40-49-69		42-52-74		45-55-78	
4RT	CFM/Side	230		307		383		460		537		613		690	
	Throw (ft.)	13-20-32		19-29-41		22-29-41		30-37-53		26-32-45		33-41-58		39-47-67	
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
21x30	Total CFM	1313		1750		2188		2625		3063		3500		3938	
	NC	15		22		28		33		37		40		43	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1313		1750		2188		2625		3063		3500		3938	
	Throw (ft.)	35-44-62		41-50-71		46-56-80		50-62-88		54-67-95		58-71-101		62-76-107	
2RL, 2RS	CFM/Side	656		875		1094		1313		1531		1750		1969	
	Throw (ft.)	19-29-51		26-39-59		32-46-66		39-51-72		45-55-78		48-59-83		51-62-88	
2CL, 2CR	CFM/Side	459		613		766		919		1072		1225		1378	
	Throw (ft.)	15-22-40		20-30-46		25-36-51		30-40-56		35-43-61		42-52-74		47-56-79	
3RS	CFM/Side	230		306		383		459		536		613		689	
	Throw (ft.)	14-22-35		22-32-46		29-37-53		34-42-59		39-46-65		44-52-77		49-58-83	
3RL	CFM/Side	469		625		781		937		1093		1250		1406	
	Throw (ft.)	21-31-50		28-41-58		35-46-65		41-50-72		44-55-77		48-58-83		50-62-88	
4RT	CFM/Side	230		306		383		459		536		613		689	
	Throw (ft.)	14-22-35		22-32-46		29-37-53		34-42-59		39-46-65		44-52-77		49-58-83	
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
21x36	Total CFM	1575		2100		2625		3150		3675		4200		4725	
	NC	15		23		29		33		37		41		44	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1575		2100		2625		3150		3675		4200		4725	
	Throw (ft.)														

ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
24x30	Total CFM	1500		2000		2500		3000		3500		4000		4500	
	NC	15		23		28		33		37		41		44	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1500		0		2000		0		2500		0		3000	
	Throw (ft.)	38-47-66		44-54-76		49-60-85		54-66-94		58-71-101		62-76-108		68-81-115	
2RL, 2RS	CFM/Side	750		750		1000		1000		1250		1250		1500	
	Throw (ft.)	21-31-54		21-31-54		28-42-63		28-42-63		35-50-70		35-50-70		42-54-77	
2CL, 2CR	CFM/Side	600		900		800		1200		1000		1500		1400	
	Throw (ft.)	16-24-42		26-36-51		21-32-49		34-42-60		27-39-55		38-47-67		32-42-60	
3RS	CFM/Side	300		600		400		800		500		1000		600	
	Throw (ft.)	16-24-38		23-35-49		21-34-41		31-40-57		26-35-49		36-45-63		31-38-54	
3RL	CFM/Side	469		516		625		688		781		860		938	
	Throw (ft.)	22-34-54		16-24-42		30-44-62		21-32-49		37-49-70		27-39-55		44-54-76	
4RT	CFM/Side	300		450		600		800		1000		1200		1500	
	Throw (ft.)	16-24-38		23-35-49		21-34-41		31-40-57		26-35-49		36-45-63		31-38-54	

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
24x30	Total CFM	1800		2400		3000		3600		4200		4800		5400	
	NC	16		23		29		34		38		41		44	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1800		0		2400		0		3000		0		3600	
	Throw (ft.)	42-51-72		48-59-84		54-66-94		59-72-103		64-78-111		68-84-119		72-89-126	
2RL, 2RS	CFM/Side	900		900		1200		1200		1500		1500		1800	
	Throw (ft.)	23-34-60		23-34-60		30-46-69		30-46-69		38-54-77		38-54-77		46-60-85	
2CL, 2CR	CFM/Side	600		1200		800		1600		1000		2000		1200	
	Throw (ft.)	17-26-46		29-40-56		23-35-54		37-46-65		29-42-60		42-51-73		35-46-66	
3RS	CFM/Side	300		750		400		1000		500		1250		600	
	Throw (ft.)	17-26-42		25-38-54		23-34-58		34-44-62		29-38-54		40-49-70		34-42-59	
3RL	CFM/Side	675		563		900		750		1125		938		1350	
	Throw (ft.)	24-37-59		17-26-46		33-48-68		23-35-54		41-54-76		29-42-60		48-59-84	
4RT	CFM/Side	300		600		400		800		1000		1200		1500	
	Throw (ft.)	17-26-42		25-38-54		23-34-58		34-44-62		29-38-54		40-49-70		34-42-59	

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
30x36	Total CFM	2250		3000		3750		4500		5250		6000		6750	
	NC	16		24		30		34		39		42		45	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	2250		0		3000		0		3750		0		4500	
	Throw (ft.)	47-57-81		54-66-94		60-74-105		66-81-115		71-88-124		76-94-133		81-99-141	
2RL, 2RS	CFM/Side	1125		1125		1500		1500		1875		1875		2250	
	Throw (ft.)	25-38-67		25-38-67		34-51-77		34-51-77		42-61-86		42-61-86		51-67-95	
2CL, 2CR	CFM/Side	938		1312		1250		1750		1563		2187		1875	
	Throw (ft.)	19-29-52		32-45-63		26-39-60		42-51-73		33-47-67		47-58-82		39-52-74	
3RS	CFM/Side	469		891		625		1187		781		1484		937	
	Throw (ft.)	19-29-47		28-42-60		26-38-54		38-49-70		32-42-60		45-55-78		38-47-66	
3RL	CFM/Side	675		788		900		1050		1125		1313		1350	
	Throw (ft.)	27-41-66		19-29-52		37-54-76		26-39-60		40-60-86		33-47-67		54-66-94	
4RT	CFM/Side	469		656		625		875		781		1094		937	
	Throw (ft.)	19-29-47		28-42-60		26-38-54		38-49-70		32-42-60		45-55-78		38-47-66	

Notes:

- Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
- Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
- NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 through 4000 Hz octave bands.
- Neck velocity: Airflow rate (CFM) divided by neck area (sq. ft.) equals the neck velocity.
- Throw: Throw values shown are measured in feet and based on isothermal air. Throw values for terminal velocities of 150, 100 and 50 fpm.
- Throw values shown are for diffuser mounted flush to the ceiling. If diffuser is mounted on exposed duct work, the throw will be reduced by 25%.



ENGINEERING DATA

M, AM: Rectangular Neck

Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
15x48	Total CFM	1500		2000		2500		3000		3500		4000		4500	
	NC	15		23		28		33		37		41		44	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1500	0	2000	0	2500	0	3000	0	3500	0	4000	0	4500	0
	Throw (ft.)	38-47-66		44-54-76		49-60-85		54-66-94		58-71-101		62-76-108		66-81-115	
2RL, 2RS	CFM/Side	750	750	1000	1000	1250	1250	1500	1500	1750	1750	2000	2000	2250	2250
	Throw (ft.)	21-31-54	21-31-54	28-42-63	28-42-63	35-50-70	35-50-70	42-54-77	42-54-77	48-59-83	48-59-83	51-63-89	51-63-89	54-67-95	54-67-95
2CL, 2CR	CFM/Side	234	1266	313	1688	391	2110	469	2531	547	2953	625	3375	703	3797
	Throw (ft.)	16-24-42	24-30-42	21-32-49	28-35-49	27-39-55	31-39-55	32-42-60	35-42-60	37-46-65	37-46-65	40-49-70	40-49-70	42-52-74	42-52-74
3RS	CFM/Side	117	691	156	922	195	1152	234	1383	273	1613	312	1844	351	2074
	Throw (ft.)	16-24-38	23-35-49	21-31-44	31-40-57	26-35-49	36-45-63	31-38-54	40-49-70	33-41-58	43-53-75	36-44-62	46-57-80	38-47-66	49-60-85
3RL	CFM/Side	1031	234	1375	313	1719	391	2063	469	2406	547	2750	625	3094	703
	Throw (ft.)	33-42-59	16-24-42	39-48-68	21-32-49	44-54-76	27-39-55	48-59-84	32-42-60	52-64-90	37-46-65	56-68-97	40-49-70	59-72-102	42-52-74
4RT	CFM/Side	117	633	156	844	195	1055	234	1266	273	1477	312	1688	351	1899
	Throw (ft.)	16-24-38	23-35-49	21-31-44	31-40-57	26-35-49	36-45-63	31-38-54	40-49-70	33-41-58	43-53-75	36-44-62	46-57-80	38-47-66	49-60-85
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
18x48	Total CFM	1800		2400		3000		3600		4200		4800		5400	
	NC	16		23		29		34		38		41		44	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	1800	0	2400	0	3000	0	3600	0	4200	0	4800	0	5400	0
	Throw (ft.)	42-51-72		48-59-84		54-66-94		59-72-103		64-78-111		68-84-119		72-89-126	
2RL, 2RS	CFM/Side	900	900	1200	1200	1500	1500	1800	1800	2100	2100	2400	2400	2700	2700
	Throw (ft.)	23-34-60	23-34-60	30-46-69	30-46-69	38-54-77	38-54-77	46-60-85	46-60-85	53-64-91	53-64-91	56-69-98	56-69-98	60-73-104	60-73-104
2CL, 2CR	CFM/Side	338	1463	450	1950	563	2438	675	2925	788	3413	900	3900	1013	4388
	Throw (ft.)	17-26-46	29-40-56	23-35-54	37-46-65	29-42-60	42-51-73	35-46-66	46-56-80	41-50-71	50-61-86	44-54-76	53-65-92	46-57-81	56-69-98
3RS	CFM/Side	169	815	226	1087	282	1359	338	1631	395	1903	451	2174	508	2446
	Throw (ft.)	17-26-42	25-38-54	23-34-48	34-44-62	29-38-54	40-49-70	34-42-59	44-54-76	37-45-64	47-58-82	39-48-68	51-62-88	42-51-72	54-66-93
3RL	CFM/Side	1125	338	1500	450	1875	563	2250	675	2625	788	3000	900	3375	1013
	Throw (ft.)	37-46-65	17-26-46	43-53-75	23-35-54	48-59-84	29-42-60	53-65-92	35-46-66	57-70-99	41-50-71	61-75-106	44-54-76	65-79-112	46-57-81
4RT	CFM/Side	169	731	226	974	282	1218	338	1462	395	1705	451	1949	508	2192
	Throw (ft.)	17-26-42	25-38-54	23-34-48	34-44-62	29-38-54	40-49-70	34-42-59	44-54-76	37-45-64	47-58-82	39-48-68	51-62-88	42-51-72	54-66-93
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
21x48	Total CFM	2100		2800		3500		4200		4900		5500		6300	
	NC	16		24		30		34		38		42		45	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	2100	0	2800	0	3500	0	4200	0	4900	0	5600	0	6300	0
	Throw (ft.)	45-55-78		52-64-90		58-71-101		64-78-111		69-85-120		74-90-128		78-96-136	
2RL, 2RS	CFM/Side	1050	1050	1400	1400	1750	1750	2100	2100	2450	2450	2800	2800	3150	3150
	Throw (ft.)	24-37-64	27-34-64	33-49-74	33-49-74	41-59-83	41-59-83	49-64-91	49-64-91	57-70-99	57-70-99	61-74-106	61-74-106	64-79-112	64-79-112
2CL, 2CR	CFM/Side	459	1641	613	2188	766	2735	919	3281	1072	3828	1225	4375	1378	4922
	Throw (ft.)	19-28-50	31-43-61	25-38-58	41-50-71	32-46-55	45-56-79	38-50-71	50-61-86	44-54-77	54-66-93	47-58-82	57-71-100	50-62-87	61-75-106
3RS	CFM/Side	230	935	306	1247	383	1559	459	1870	536	2182	613	2494	689	2805
	Throw (ft.)	18-28-45	27-41-58	25-37-52	37-47-67	31-41-58	43-53-75	37-45-64	47-58-82	40-49-69	51-63-89	42-52-74	55-67-95	45-55-78	58-71-101
3RL	CFM/Side	1181	459	1575	613	1969	766	2363	919	2756	1072	3150	1225	3544	1378
	Throw (ft.)	40-49-70	19-28-50	46-57-81	25-38-58	52-64-90	32-46-65	57-70-99	38-58-71	62-75-107	44-54-77	66-81-114	47-58-82	70-86-121	50-62-87
4RT	CFM/Side	230	820	306	1094	383	1367	459	1641	536	1914	613	2187	689	2461
	Throw (ft.)	18-28-45	27-41-58	25-37-52	37-47-67	31-41-58	43-53-75	37-45-64	47-58-82	40-49-69	51-63-89	42-52-74	55-67-95	45-55-78	58-71-101
Neck Velocity		300		400		500		600		700		800		900	
Total Pressure (PT)		0.042		0.075		0.117		0.168		0.229		0.299		0.379	
24x48	Total CFM	2400		3200		4000		4800		5600		6400		7200	
	NC	17		24		30		35		39		42		45	
	Side	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1RL, 1RS	CFM/Side	2400	0	3200	0	4000	0	4800	0	5600	0	6400	0	7200	0
	Throw (ft.)	48-59-84		56-68-97		62-76-108		68-84-119		74-90-128		79-97-137		84-103-145	
2RL, 2RS	CFM/Side	1200	1200	1600	1600	2000	2000	2400	2400	2800	2800	3200	3200	3600	3600
	Throw (ft.)	26-39-69	26-39-69	35-53-80	35-53-80	44-63-89	44-63-89	53-69-98	53-69-98	61-74-106	61-74-106	65-80-113	65-80-113	69-85-120	69-85-120
2CL, 2CR	CFM/Side	600	1800	800	2400	1000	3000	1200	3600	1400	4200	1600	4800	1800	5400
	Throw (ft.)	20-30-54	33-46-65	27-41-62	43-53-75	34-49-70	49-60-84	41-54-76	53-65-92	47-58-82	57-71-100	51-62-88	61-75-107	54-66-93	65-80-113
3RS	CFM/Side	300	1050	400	1400	500	1750	600	2100	700	2450	800	2800	900	3150
	Throw (ft.)	20-30-48	29-44-62	27-39-56	39-51-72	33-44-62	46-57-80	39-48-68	51-62-98	42-52-74	55-67-95	45-56-79	59-72-102	48-59-84	62-76-108
3RL	CFM/Side	1200	600	1600	800	2000	1000	2400	1200	2800	1400	3200	1600	3600	1800
	Throw (ft.)	38-52-74	20-30-54	49-60-86	27-41-62	55-67-96	34-49-70	60-74-105	41-54-76	65-80-113	47-58-82	70-86-121	51-62-88	74-91-129	54-66-93
4RT	CFM/Side	300	900	400	1200	500	1500	600	1800	700	2100	800	2400	900	2700
	Throw (ft.)	20-30-48	29-44-62	27-39-56	39-51-72	33-44-62	46-57-80	39-48-68	51-62-98	42-52-74	55-67-95	45-56-79	59-72-102	48-59-84	62-76-108

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Units: Neck Velocity = fpm; Total Pressure (P) = in. wc;
3. NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 1

ENGINEERING DATA

M, AM: Adjustable Square Neck

MA, AMA Performance Notes

Vertical adjustments are most effective with the sizes listed in the table below using the deflection pattern 4SQ (4-way square).

Apply the throw factor to the 50 fpm terminal velocity throw only.

For MA, AMA series diffusers (adjustable pattern controllers) apply the corrections from the table below to the MA, AMA data for square neck, 4-way core styles, as follows:

NC: Take listed value and add to correction
(Listed value) + (correction)

PT: Take listed value and multiply by correction
(Listed value) x (correction)

Throw: Take listed value and multiply by correction
(Listed value) x (correction)

Corrections for MA, AMA Series (adjustable pattern controllers)

Square Neck Size (in.)	NC (Add)		Total Pressure (Pr) (Multiply)		Vertical Throw (Multiply)			
					Cooling	Heating, ΔT		
	H	V	H	V	20°F	0°F	20°F	40°F
6x6	3	7	1.3	1.6	1.3	1.1	0.8	0.6
9x9	3	7	1.5	2.3	1.5	1.2	0.9	0.6
12x12	3	7	1.5	2.3	1.6	1.3	1.0	0.6
15x15	3	7	1.5	2.3	1.7	1.3	1.0	0.6
18x18	3	7	1.5	2.3	1.7	1.3	0.9	0.6
21x21	3	7	1.5	2.3	1.7	1.3	0.8	0.5