PERFORMANCE DATA:

MODELS 6500IV AND 6200IV • SQUARE NECK • INDUCTION VANES

NOMINAL NECK SIZE	BLOW PATTERNS	NECK VELOCITY TP	300 .035		400 .062		500 .097		600 .140		700 .191		800 .249		900 .316	
	RETURN FACTORS —SP=1.1 TP NC + 1	CFM NC	75 —		100 14		125 21		150 26		175 30		200 35		225 39	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
6 x 6 .25 SQ. FT.	4A	CFM/SIDE	19		25		31		37		44		50		56	
		THROW, FT.	3-4-6		3-5-8		5-6-8		5-6-9		6-7-10		6-7-10		7-8-10	
	3A	CFM/SIDE	19	28	25	38	31	47	37	56	44	66	50	75	56	85
		THROW, FT.	3-4-6	4-6-9	3-5-8	5-7-10	5-6-8	6-8-11	5-6-9	6-9-12	6-7-10	7-10-13	6-7-10	7-10-14	7-8-10	8-10-14
	2S 2G	CFM/SIDE	37		50		62		75		88		100		113	
		THROW, FT.	6-7-10		7-8-11		8-9-13		9-10-14		10-10-14		10-10-15		10-11-16	
	1S	CFM/SIDE	75		100		125		150		175		200		225	
		THROW, FT.	7-9-12		8-10-14		9-11-15		10-12-18		10-13-18		11-14-19		12-14-20	
	RETURN FACTORS —SP=1.2 TP NC + 2	CFM NC	170 —		225 18		280 24		340 30		395 35		450 39		505 42	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
9 x 9 .56 SQ. FT.	4A	CFM/SIDE	42		56		70		84		98		112		126	
		THROW, FT.	5-6-10		6-8-11		8-9-12		8-10-13		9-10-14		9-11-15		10-12-16	
	3A	CFM/SIDE	42	63	56	85	70	106	84	127	98	148	112	169	126	190
		THROW, FT.	5-6-10	7-9-11	6-8-11	8-10-14	8-9-12	9-10-15	8-10-13	10-11-16	9-10-14	10-12-17	9-11-15	10-13-18	10-12-16	11-14-19
	2S 2G	CFM/SIDE	84		112		141		169		197		225		253	
		THROW, FT.	7-8-12		9-10-14		10-12-16		10-13-18		11-14-18		12-14-20		13-15-22	
	1S	CFM/SIDE	169		225		282		338		394		450		507	
		THROW, FT.	10-12-16		11-14-18		13-15-21		14-18-23		14-18-25		15-19-26		18-20-28	
	RETURN FACTORS —SP=1.3 TP NC + 4	CFM NC	300 14		400 21		500 27		600 32		700 37		800 40		900 43	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
12 x 12 1.0 SQ. FT.	4A	CFM/SIDE	75		100		125		150		175		200		225	
		THROW, FT.	6-10-12		9-11-14		10-12-17		11-14-18		11-14-19		12-16-20		14-17-22	
	3A	CFM/SIDE	75	112	100	150	125	187	150	225	175	262	200	300	225	338
		THROW, FT.	6-10-12	9-11-15	9-11-14	11-13-17	10-12-17	11-14-19	11-14-18	12-15-21	11-14-19	13-16-22	12-16-20	14-17-24	14-17-22	15-18-25
	2S 2G	CFM/SIDE	150		200		250		300		350		400		450	
		THROW, FT.	10-12-16		12-14-20		14-15-22		14-16-23		15-17-25		16-20-27		17-20-29	
	1S	CFM/SIDE	300		400		500		600		700		800		900	
		THROW, FT.	13-16-22		14-18-26		17-20-30		18-21-31		18-22-33		20-23-33		22-26-38	
	RETURN FACTORS —SP=1.8 TP NC + 4	CFM NC	465 14		625 23		780 29		935 34		1090 37		1250 43		1400 45	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
15 x 15 1.56 SQ. FT.	4A	CFM/SIDE	117		156		195		234		273		312		350	
		THROW, FT.	10-13-17		11-14-19		13-15-22		14-17-23		15-18-24		16-19-26		17-21-28	
	3A	CFM/SIDE	117	175	156	234	195	292	234	351	273	409	312	468	350	527
		THROW, FT.	10-13-17	11-14-18	11-14-19	14-18-23	13-15-22	15-18-25	14-17-23	17-18-27	15-18-24	18-20-29	16-19-26	18-23-31	17-21-28	20-23-34
	2S 2G	CFM/SIDE	234		312		390		468		546		625		700	
		THROW, FT.	13-16-22		15-18-25		17-20-29		18-22-32		19-23-34		22-25-36		22-28-38	
	1S	CFM/SIDE	467		625		780		935		1090		1250		1400	
		THROW, FT.	17-20-29		18-23-34		21-26-38		23-29-41		24-31-44		26-34-46		29-35-49	
	RETURN FACTORS —SP=2.1 TP NC + 6	CFM NC	675 16		900 25		1125 31		1350 35		1575 40		1800 43		2025 46	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
18 x 18 2.25 SQ. FT.	4A	CFM/SIDE	168		225		281		337		394		450		506	
		THROW, FT.	12-15-20		14-16-23		15-19-26		16-20-29		18-22-30		19-23-33		20-25-34	
	3A	CFM/SIDE	168	253	225	338	281	422	337	506	394	590	450	675	506	760
		THROW, FT.	12-15-20	14-18-23	14-16-23	16-20-26	15-19-26	18-22-30	16-20-29	20-26-34	18-22-30	21-26-36	19-23-33	22-28-38	20-25-34	26-29-41
	2S 2G	CFM/SIDE	337		450		562		675		787		900		1012	
		THROW, FT.	15-18-26		18-21-30		19-24-34		21-25-37		24-27-39		24-28-42		26-31-44	
	1S	CFM/SIDE	675		900		1125		1350		1575		1800		2025	
		THROW, FT.	20-26-36		24-29-41		27-34-46		29-36-49		31-38-53		34-42-56		37-44-60	

For performance notes, see D44.

PERFORMANCE DATA:

MODELS 6500IV AND 6200IV • SQUARE NECK • INDUCTION VANES

NOMINAL NECK SIZE	BLOW PATTERNS	NECK VELOCITY TP	300 .035		400 .062		500 .097		600 .140		700 .191		800 .249		900 .316	
	RETURN FACTORS —SP=2.6 TP NC + 8	CFM NC	915 18		1225 26		1530 32		1835 36		2140 41		2450 44		2750 47	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
21 x 21 3.06 SQ. FT.	4A	CFM/SIDE THROW, FT.	230 14-17-24		306 15-20-27		382 17-22-31		460 18-24-33		535 20-27-35		612 21-27-37		688 22-31-41	
	3A	CFM/SIDE THROW, FT.	230 12-15-21	345 16-20-27	306 14-18-23	460 18-22-31	382 15-20-27	573 21-25-36	460 16-21-29	688 22-27-40	535 18-22-31	802 23-29-42	612 18-23-32	918 27-31-45	688 20-27-36	1030 27-34-47
	2S 2G	CFM/SIDE THROW, FT.	458 18-22-31		612 20-25-36		765 22-28-40		917 25-31-44		1070 27-34-47		1225 27-36-50		1375 31-38-48	
	1S	CFM/SIDE THROW, FT.	917 23-30-41		1225 27-34-47		1530 31-40-54		1835 34-42-57		2140 37-45-62		2450 40-48-66		2750 42-51-70	
	RETURN FACTORS —SP=2.7 TP NC + 8	CFM NC	1200 19		1600 27		2000 33		2400 37		2800 41		3200 45		3600 48	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
24 x 24 4.0 SQ. FT.	4A	CFM/SIDE THROW, FT.	300 16-19-26		400 19-22-32		500 22-25-35		600 23-26-38		700 25-28-41		800 26-32-44		900 28-32-46	
	3A	CFM/SIDE THROW, FT.	300 16-19-26	450 18-22-31	400 19-22-32	600 19-25-37	500 22-25-35	750 23-29-42	600 23-26-38	900 25-30-45	700 25-28-41	1050 29-33-47	800 26-32-44	1200 29-34-51	900 28-32-46	1350 31-38-54
	2S 2G	CFM/SIDE THROW, FT.	600 20-26-36		800 24-29-41		1000 27-34-46		1200 29-36-49		1400 31-38-53		1600 34-42-56		1800 37-44-60	
	1S	CFM/SIDE THROW, FT.	1200 28-32-47		1600 30-38-54		2000 36-43-62		2400 38-46-66		2800 41-50-72		3200 43-54-74		3600 47-56-81	
	RETURN FACTORS —SP=3.1 TP NC + 8	CFM NC	1875 20		2500 28		3125 34		3750 39		4375 43		5000 46		5625 50	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
30 x 30 6.25 SQ. FT.	4A	CFM/SIDE THROW, FT.	469 20-25-34		625 23-29-38		782 27-32-44		937 29-35-49		1093 30-37-52		1250 32-40-55		1406 37-42-58	
	3A	CFM/SIDE THROW, FT.	469 20-25-34	703 22-27-39	625 23-29-38	938 26-31-46	782 27-32-44	1172 28-35-51	937 29-35-49	1405 31-39-55	1093 30-37-52	1640 33-39-59	1250 32-40-55	1875 35-46-62	1406 37-42-58	2110 39-48-66
	2S 2G	CFM/SIDE THROW, FT.	937 26-32-44		1250 30-38-50		1562 34-42-58		1875 38-46-62		2187 40-48-66		2500 42-52-70		2812 46-54-76	
	1S	CFM/SIDE THROW, FT.	1875 34-42-58		2500 39-48-66		3125 45-55-74		3750 48-58-82		4375 50-62-87		5000 55-66-117		5625 58-70-98	
	RETURN FACTORS —SP=3.6 TP NC + 9	CFM NC	2700 22		3600 29		4500 35		5400 40		6300 44		7200 48		8100 52	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B
36 x 36 9.0 SQ. FT.	4A	CFM/SIDE THROW, FT.	675 24-30-41		900 27-33-46		1125 31-37-54		1350 33-41-59		1575 35-42-62		1800 41-46-66		2025 41-51-70	
	3A	CFM/SIDE THROW, FT.	675 24-30-41	1010 27-35-46	900 27-33-46	1350 32-38-54	1125 31-37-54	1687 37-45-62	1350 33-41-59	2025 38-48-66	1575 35-42-62	2362 42-51-70	1800 41-46-66	2700 46-56-75	2025 41-51-70	3038 50-59-80
	2S 2G	CFM/SIDE THROW, FT.	1350 32-36-54		1800 34-43-61		2250 40-49-69		2700 43-52-74		3150 46-56-81		3600 49-61-83		4050 54-63-90	
	1S	CFM/SIDE THROW, FT.	2700 39-49-68		3600 47-56-79		4500 53-64-91		5400 58-68-98		6300 61-73-105		7200 66-78-114		8100 70-85-120	

CFM - cubic feet per minute
Neck Velocity - feet per minute
TP - total pressure - inches w.g.
NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. Throw values are given for terminal velocities of 150, 100 and 50 fpm under isothermal conditions. Data applies to ceiling mounted units when the maximum coanda effect applies. When no ceiling is present (exposed duct), throws are reduced by approximately 25%.
2. Sound levels in performance tables are for steel construction – **Model 6500IV**. Apply the following corrections for aluminum construction – **Model 6200IV**.
TP = Listed value x 1.25.
NC = Listed value + 4.
3. Performance data as tabulated is for supply air conditions. Correction factors for return air application - see next page.
4. Correction factors for round inlets - see next page.
5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

PERFORMANCE DATA CORRECTIONS :

MODEL SERIES 6500IV AND 6200IV

CORRECTION FACTORS FOR RETURN INLET

If the unit is used as a return inlet, the performance data is obtained by applying the return corrections, as follows:

- Add the NC correction at the left side of the table to the NC value listed in the performance table.
- Multiply the listed SP factor at the left side of the table by the total pressure (TP) listed at the top of the table.

Example:

12" x 12" unit handling 600 cfm of return air. (Page D43).

- Return NC = 32 + 4 = 36.
- Return negative SP = 1.3 x (– .14) = – .182.

CORRECTION FACTORS WITH SQUARE TO ROUND INLET ADAPTOR

- Add the NC correction factor from Table 2 and the NC value listed in the performance tables.
- Multiply the correction factor from Table 2 by the listed total pressure in the performance tables.
- Multiply the correction factor from Table 2 by the listed throws in the performance tables.

Example:

12" x 12" unit with 10" round adaptor handling 500 cfm supply air. (Page D43).

- NC = 27 + 7 = 34
- Total Pressure = .097 x 1.65 = 0.160
- Throw = 17 x 1.15 = 19.55 feet @ 50 fpm terminal velocity.

TABLE 2 Correction Factors for SR Adaptors

SQUARE INLET	ROUND INLET	NC (add)	TP (multiply)	THROW (multiply)		
				150	100	50
6 x 6	5	7	1.65	1.10	1.10	1.15
9 x 9	6	17	3.50	1.15	1.15	1.20
9 x 9	8	4	1.40	1.10	1.10	1.10
12 x 12	8	17	3.50	1.15	1.15	1.20
12 x 12	10	7	1.65	1.10	1.10	1.15
15 x 15	10	17	3.50	1.15	1.15	1.20
15 x 15	12	9	1.90	1.10	1.10	1.15
15 x 15	14	3	1.25	1.05	1.05	1.10
18 x 18	12	17	3.50	1.15	1.15	1.20
18 x 18	14	10	2.00	1.10	1.10	1.15
18 x 18	16	5	1.45	1.10	1.10	1.10
21 x 21	14	17	3.70	1.15	1.15	1.20
21 x 21	16	11	2.25	1.10	1.10	1.15
21 x 21	18	6	1.60	1.10	1.10	1.10
21 x 21	20	3	1.20	1.05	1.05	1.10
24 x 24	16	17	3.50	1.15	1.15	1.20
24 x 24	18	12	2.35	1.10	1.10	1.15
24 x 24	20	7	1.65	1.10	1.10	1.15
24 x 24	22	4	1.33	1.05	1.05	1.10