SCB31 (3-Way) Series																					See Footnotes E		
SIZE	velocity		400			500			600			700			800			1000					
	Duct Pt		.038			.108			.155			.220			.285			.438					
6x6	Eff. Area .09 ft^2	Total CFM	77			99			121			143			154			286					
		NC	<20			<20			<20			<20			20			20					
		CFM x/y	19	28		24	37		33	44		24	52		39	57		52	72				
		Throw x	4	4	4	4	4	4	3	4	5	5	6	7	6	8	10	6	8	10			
		Throw y	4	4	4	5	6	7	5	6	7	5	6	7	6	8	10	9	11	13			
8x8	Eff. Area .17 ft^2	Total CFM	143			176			209			242			286			352					
		NC	<20			<20			<20			<20			20			25					
		CFM x/y	24	52		52	61		63	72		66	88		74	105		105	123				
		Throw x	5	6	7	5	6	7	5	6	7	5	6	7	6	8	10	9	11	13			
		Throw y	4	4	4	4	4	4	5	6	7	5	6	7	6	8	10	9	11	13			
10x10	Eff. Area .26 ft^2	Total CFM	247			312			377			442			494			624					
		NC	<20			<20			20			20-25			25			25-30					
		CFM x/y	75	85		93	109		111	132		130	156		150	171		187	218				
		Throw x	4	4	4	5	6	7	5	6	7	7	8	9	9	11	13	10	13	16			
		Throw y	5	6	7	7	8	9	9	11	13	11	13	15	10	13	16	12	15	18			
12x12	Eff. Area .38 ft^2	Total CFM	377			422			546			637			754			910					
		NC	<20			<20			20			20-25			25			25-30					
		CFM x/y	111	132		130	156		166	189		195	221		223	265		286	312				
		Throw x	4	4	4	5	6	7	5	6	7	7	8	9	9	11	13	10	13	16			
		Throw y	7	8	9	7	8	9	11	13	15	13	15	17	14	17	20	15	19	23			
14x14	Eff. Area .52 ft^2	Total CFM	494			624			754			871			1001			1248					
		NC	<20			<20			20			25			25-30			30					
		CFM x/y	150	171		187	218		223	265		257	306		299	351		364	442				
		Throw x	5	6	7	5	6	7	7	8	9	7	8	9	9	11	13	12	15	18			
		Throw y	7	8	9	10	13	16	13	15	17	15	17	20	15	19	23	21	26	31			

SCB41 (4-Way) Series																			See Footnotes E		
SIZE	Velocity		400			500			600			700			800			1000		
	Duct Pt		.038			.108			.155			.220			.285			.438		
6x6	Eff.Area .09 ft2	Total CFM	77			99			121			143			154			286		
		NC	<20			<20			<20			<20			20			20		
		CFM x/y	13	26		19	29		24	36		28	42		30	46		39	59	
		Throw x	2.5	3	3.5	2.5	3	3.5	3	4	5	3	4	5	3	4	5	5	6	7
		Throw y	3	4	5	5	6	7	5	6	7	6.5	8	9.5	6.5	8	10	8.5	11	13
8x8	Eff.Area .17 ft2	Total CFM	143			176			209			242			286			352		
		NC	<20			<20			<20			<20			20			25		
		CFM x/y	28	42		35	52		41	62		48	72		57	85		70	105	
		Throw x	3	4	5	3	4	5	5	6	7	5	6	7	6.5	8	10	8.5	11	13
		Throw y	3	4	5	3	4	5	5	6	7	5	6	7	6.5	8	10	8.5	11	13
10x10	Eff.Area .26 ft2	Total CFM	247			312			377			442			494			624		
		NC	<20			<20			20			20-25			25			25-30		
		CFM x/y	49	74		62	93		75	113		88	132		98	148		124	187	
		Throw x	3	4	5	5	6	7	6.5	8	10	6.5	8	9.5	6.5	8	10	9.5	12	15
		Throw y	3	4	5	5	6	7	6.5	8	10	8.5	11	13	10.5	13	16	12	15	18
12x12	Eff.Area .38 ft2	Total CFM	377			442			546			637			728			910		
		NC	<20			<20			20			20-25			25			25-30		
		CFM x/y	75	113		88	132		109	163		127	191		145	218		182	273	
		Throw x	3	4	5	5	6	7	6.5	8	10	6.5	8	9.5	8.5	11	13	12	15	18
		Throw y	6.5	8	9.5	6.5	8	9.5	10.5	13	16	10.5	13	15.5	13.5	17	21	20.5	26	31
14x14	Eff.Area .52 ft2	Total CFM	494			624			754			871			1001			1248		
		NC	<20			<20			20			25			25-30			30		
		CFM x/y	98	148		124	187		150	226		174	261		200	300		249	374	
		Throw x	3	4	5	5	6	7	6.5	8	10	6.5	8	9.5	8.5	11	13	12	15	18
		Throw y	6.5	8	9.5	9.5	12	14.5	12	15	18	13.5	17	20.5	15	19	23	20.5	26	31

ENGINEERING FOOTNOTES

Footnote A:
Size: Nominal size or the duct opening.
Effective Area: The space between the vanes actually utilized by the air.
Velocity: The actual velocity of the air through the vanes measured with a velometer or similar device.
Duct Pt: The total pressure behind the register in the duct forcing that air through the register.
Throw: The throws noted in the tables are the distance from the register to where the air stream velocity has dropped to not under 100/75/50 F.P.M.

Footnote B:
Size: Nominal size or the duct opening.
Effective Area: The space between the vanes actually utilized by the air.
Velocity: The actual velocity of the air through the vanes measured with a velometer or similar device.
Duct Ps: The static pressure in the duct behind the grille. The static load on the fan chargeable against that grille. Velometer readings are taken between grille vanes giving actual velocity.

Footnote C:
Noise Criteria: NC "A" scale. (1) Below NC25 extremely quiet. (2) Below NC30 Quiet Office.
(3) Below NC35 Conference Rooms; normal voice 10-30 ft. (4) Below NC40 Conference Rooms; 6-12 ft. normal voice.
(5) NC45 Conference Rooms; 3-6 ft. normal voice.

Footnote D:
1) Tested without filters. Typical disposable 1" capacity is 2 cfm per square inch of gross filter area. Recommended velocity is 300-400 fpm. Velocities higher than 500 fpm will decrease filter performance. Increase flow resistance, and possibly blow off agglomerates of collected dirt. Velocity measured 1" from face.
2) Generally the more surface area of media you have in an air filter the lower pressure drop you will have across the filter.
3) Lower face velocities (the air speed at the face of the filter) will also produce less pressure drop across the filter while higher return air velocities cause higher pressure drop and can cause the filter to blow off agglomerates. Ashrae calls out for 300 FPM face velocity across the filter face. This is the ideal return air velocity. Actual face velocities will vary depending on the system design."

Example: 20x25 filter = 3.47 SF x 300 FPM face velocity = 1041 CFM
20x25 filter = 3.47 SF x 500 FPM face velocity = 1736 CFM

Footnote E:
Size: Nominal size or the duct opening.
Effective Area: The space between the vanes actually utilized by the air.
Velocity: The actual velocity of the air through the vanes measured with a velometer or similar device.
Duct Pt: The total pressure behind the register in the duct forcing that air through the register.
Throw: The throws noted in the tables are the distance from the register to where the air stream velocity has dropped to not under 100/75/50 F.P.M.
Noise Criteria: NC "A" scale. (1) Below NC25 extremely quiet. (2) Below NC30 Quiet Office. (3) Below NC35 Conference Rooms; normal voice 10-30 ft. (4) Below NC40 Conference Rooms; 6-12 ft. normal voice. (5) NC45 Conference Rooms; 3-6 ft. normal voice.