

# Centrifugal Ceiling Exhaust and Inline Cabinet Fans Models SP and CSP



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 **GREENHECK**  
Building Value in Air.

June  
2024

**Great things** come in small packages, as do our **SP** ceiling exhaust fan and **CSP** inline cabinet fan models. Be assured when you buy any Greenheck product, it is a quality product at a **competitive price**. Plus, we guarantee our SP and CSP fans with a **three-year warranty**. We are your market leader for the most comprehensive ceiling and cabinet fan line in the market.

**Typical Installations**

- Multifamily housing
- Hotels
- Hospitals
- Schools
- Bathrooms
- Storage rooms

**Benefits**

- Industry-leading sound levels
- Compact size
- Wide range of performance
- Available with EC motors for higher efficiency and more controllability
- Helps maintain acceptable indoor air quality

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### Model Comparison

Model	Location		Mounting				Airflow				Application						Drive Type	Impeller Type			Performance			
	Outdoor	Indoor	Roof Curb	Base/Floor	Hanging	Wall	Ceiling Mounted	Exhaust	Supply	Reversible	Recirculate	General/Clean Air	Contaminated Air	Spark Resistant	Grease (UL 705)	Smoke Control (UL)	High Wind (150 mph)	High Temp (above 200°F)	Direct	Centrifugal	Propeller/Axial	Mixed Flow	Maximum Volume (cfm)	Maximum Static Pressure (in. wg)
SP		✓			✓	✓	✓	✓				✓							✓	✓			1,600	1
CSP		✓			✓		✓	✓			✓								✓	✓			3,400	1

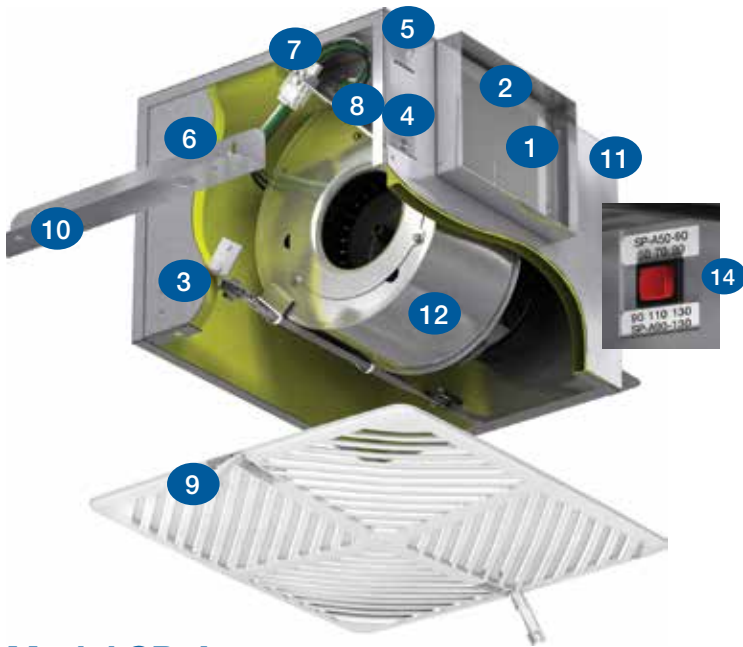


SP fans are designed for ceiling-mounted exhaust applications.

CSP fans are designed for inline supply or exhaust applications.

Model	Level of Construction	Description	Profile min. height	Sound min. sones	Air Volume max. cfm	UL Listing
Ceiling Insert	SP	<b>Premium Constant CFM Ceiling Fan:</b> 3 speed CFM selection	9 inches (229 mm)	<0.3	130 cfm (220 m <sup>3</sup> /hr)	UL/cUL Listed for above bathtub/shower with GFCI branch protected circuit
	SP	<b>Premium Ceiling Fan:</b> Widest selection to meet sound requirements. Select sizes available with Vari-Green® motor.	9 inches (229 mm)	<0.3	1,600 cfm (2718 m <sup>3</sup> /hr)	UL/cUL Listed for above bathtub/shower with GFCI branch protected circuit (Sizes A390 and smaller)
	SP	<b>Deluxe Ceiling Fan:</b> Compact to fit most applications with quiet operation	7 inches (178 mm)	0.8	200 cfm (340 m <sup>3</sup> /hr)	UL/cUL Listed for above bathtub/shower with GFCI branch protected circuit
Inline Fans	CSP	<b>Premium Inline Fan:</b> Widest selection and industry-leading low sound. Select sizes available with Vari-Green® motor.	9 inches (229 mm)	0.8	3,400 cfm (5777 m <sup>3</sup> /hr)	UL/cUL Listed

All dimensions are in inches (millimeters)

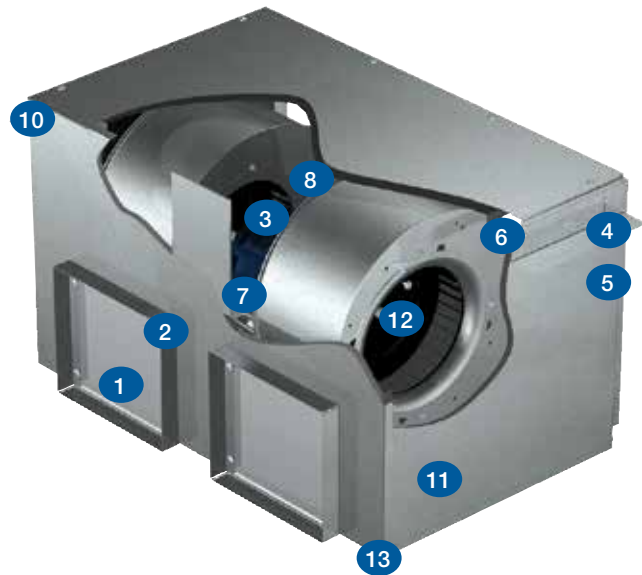
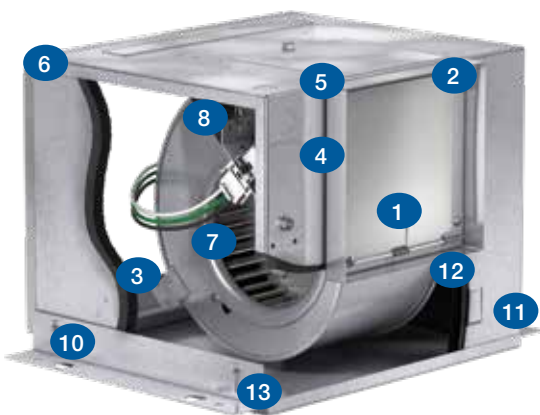




**Model SP-A  
and SP-A-VG**



**Model SP-B**

**Model CSP-A**



Number and Description		Specific Features for Each Model			
		SP-A	SP-B	CSP-A	
1	Backdraft Damper	Durable plastic to reduce backdrafts	70-90	✓	
		Aluminum to reduce backdrafts	110-1550		✓
2	Outlet	Round - For quick and easy connections	70-90 50-90-VG 90-130-VG	✓	
		Square - For quick and easy connections	110-1550		✓
3	Power Pack	Removes quickly for maintenance/replacement	✓	✓	✓
		Includes conversion from horizontal to vertical discharge	✓		✓
4	Electrical Access	Vertical electrical access to eliminate drilling holes	✓	✓	✓
		External electrical access to save installation time	✓		✓
5	Electrical Knockouts	Eliminates drilling holes (horizontal or vertical)	✓	✓	✓
6	Acoustic Insulation	Absorbs sound	✓		✓
7	Disconnect	Servicing is quick and safe	✓	✓	✓
8	Electrical Junction Box	Large for easy wiring	✓	✓	✓
9	Grille	Concealed attachment screws securely fasten grille to housing for quiet, rattle-free operation	✓	✓	
10	Mounting Brackets	Adjustable for multiple installation conditions	✓	✓	✓
11	Housing	Embossed galvanized steel for rigidity	✓	✓	✓
		A low profile for height-restricted areas		✓	
12	Motors	Motors are compatible for use with speed controls and have thermal overload protection  Domestic & International • 50 cycle, 220V or 240V ( <b>see supplemental catalog</b> ) • 60 cycle, 115V, 208V, 220V, 230V, & 277V options (See CAPS® or pg. 6 for availability)	✓		✓
13	Access Panel	Gain easy access to internal components once installed	✓	✓	✓
14	CFM Speed Selector	User-controlled internal switch to set fan to operate at one of three speeds for desired airflow	50-90-VG 90-130-VG		
	Exclusive Electrical Wiring Feature	Electrical access cover located on the housing exterior. This feature permits external wiring without removing the power assembly, saving installation time and cost. Available on models SP-A and CSP-A.			
	Double-Wide Fans	Available for applications requiring 700 cfm or greater. Double-wide fans have two double-width forward-curved wheels, which are housed in separate scrolls, and driven by a single motor. Available on models SP-A and CSP-A.			
	Vertical Discharge	Exhaust outlet duct installed in the optional vertical position. The power assembly must be rotated to match the duct adapter position. Available on SP-A and CSP-A models.			

SP Model	115V/60Hz	115V/50Hz	220-240V/50Hz	220-240V/60Hz	277V	EC Motor	Output Power (Watts or HP)	ASHRAE 90.1 Compliant
SP-A70	317723						2.25W	Yes
SP-A90	312280						3.61W	Yes
SP-A110	312281						4.57W	Yes
SP-A125	312282						6.14W	Yes
SP-A50-90-VG	327959	327959	327959	327959		Yes	12W	Yes
SP-A90-130-VG	327960	327960	327960	327960		Yes	12W	Yes
SP-A200	1039434						18.65W	Yes
SP-A250	1039435						1/30	Yes
SP-A390	304842	304842					1/12	Yes
SP-A390-VG	329508	329508	329508	329508	329508	Yes	1/10	Yes
SP-A410	301817						1/19	Yes
SP-A510	310225		311741	311741			1/12	Yes
SP-A510-VG	329557	329557	329557	329557	329557	Yes	17/100	Yes
SP-A700	318873						1/7	No
SP-A700-VG	328174	328174	328174	328174	328174	Yes	29/100	Yes
SP-A710	301816						1/6	No
SP-A710-VG	329558	329558	329558	329558	329558	Yes	27/100	Yes
SP-A780	309133						1/3	No
SP-A900	318871						1/6	No
SP-A1050	318863						1/4	No
SP-A1050-VG	328173	328173	328173	328173	328173	Yes	1/3	Yes
SP-A1300	329516						1/7	No
SP-A1550	318865		329309	329309			3/4	No
SP-B50	315037						1W	Yes
SP-B70	315038						3W	Yes
SP-B80	1039948						5W	Yes
SP-B90	1039440						5W	Yes
SP-B110	1039437						8W	Yes
SP-B110ES	356655						9W	Yes
SP-B150	1039438						18W	Yes
SP-B200	318872						1/30	Yes

\*Note: All motors are rated for continuous use



Greenheck Fan Corporation certifies that the SP models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The SP models are not AMCA certified with 50 hertz motors.



CSP Model	115V/60Hz	115V/50Hz	220-240V/50Hz	220-240V/60Hz	277V	EC Motor	Output Power (Watts or HP)	ASHRAE 90.1 Compliant
CSP-A110	312281						4.57W	Yes
CSP-A125	312282						6.14W	Yes
CSP-A200	316481						18.65W	Yes
CSP-A250	316480						1/30	Yes
CSP-A390	304842	304842					1/12	Yes
CSP-A390-VG	329508	329508	329508	329508	329508	Yes	1/10	Yes
CSP-A410	301817						1/19	Yes
CSP-A510	310225		311741	311741			1/12	Yes
CSP-A510-VG	329557	329557	329557	329557	329557	Yes	17/100	Yes
CSP-A700	318873						1/7	No
CSP-A700-VG	328174	328174	328174	328174	328174	Yes	29/100	Yes
CSP-A710	301816						1/6	No
CSP-A710-VG	329558	329558	329558	329558	329558	Yes	1/4	Yes
CSP-A780	309133						1/3	No
CSP-A900	318871						1/6	No
CSP-A1050	318863						1/4	No
CSP-A1050-VG	328173	328173	328173	328173	328173	Yes	1/3	Yes
CSP-A1300	329516						3/7	No
CSP-A1550	318865						3/4	No
CSP-A1750	318864						3/4	No
CSP-A2150	318864						3/4	No
CSP-A3300-VG	356599	356599	356599	356599	356599	Yes	1	Yes

\*Note: All motors are rated for continuous use



Greenheck Fan Corporation certifies that the CSP models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. The CSP models are not AMCA certified with 50 hertz motors.

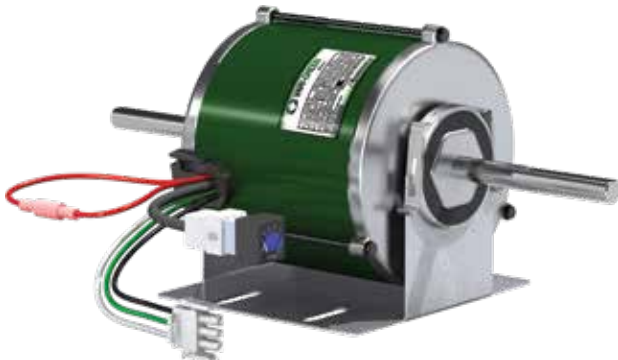


Models SP and CSP are listed electric fans (UL/cUL 507). Ceiling Exhaust Fans are also UL Listed for above bathtub/shower with GFCI branch protected circuit. File no. E33599. Note: SP/CSP fans are rated for direct contact with insulation.

Products that earn the ENERGY STAR® prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.

LEARN MORE AT [energystar.gov](http://energystar.gov)

Fans that are ENERGY STAR certified include: SP-A70, SP-A90, SP-A110, SP-A125, SP-A200, SP-A250, SP-B50, SP-B70, SP-B80, SP-B90, SP-B110ES, SP-A50-90-VG, SP-A90-130-VG, CSP-A110, CSP-A125, CSP-A200, CSP-A390-VG



## Vari-Green® Motor

**EC Motor Technology Information & Advantages -** Greenheck's Vari-Green (VG) electronically commutated (EC) motor combines motor technology, controllability and energy efficiency into a single low maintenance unit and is the industry's first fully controllable motor. The EC motor operates on AC power converted to DC, providing more efficient motor operation than an AC operation. The controllability of the Vari-Green motor allows communication compatibility with a variable volume system. This controllability allows motor speed adjustment to exhaust air as needed and reduce over-exhausting conditioned air.

Available Vari-Green Controls and Models		
Controls	Models	
		SP-A50-90-VG SP-A90-130-VG
VOC		385822, 387186, 384589
Temperature/Humidity		385822, 387186, 387127
Two-Speed		867010
Remote Dial		385822, 387186, 385803
Touch Remote		385822, 387186, 385396
Constant Pressure		385822, 387186, 872982
Potentiometer		385806
Transformer		867009, 387186
Constant Airflow	Standard	385822, 387186, 872985
0-10V DC		385822
CFM Speed Selector	Standard	

See Greenheck's Vari-Green Motor and Vari-Green Controls brochures for more information.

## Vari-Green® Controls

**Transformer** - Provides 24V power from the existing line voltage at the fan to the Vari-Green motor and controls. Dual voltage primary (120/240V) transformer provided with the fan.

**Remote Dial** - Allows for remote, manual airflow adjustments. Wall plate with a dial may be mounted in a standard 2x4 inch electrical junction box.

**Two-Speed Control** - Control allows motor rpm to be set at two independent speeds (high or low). Meets minimum airflow requirements with the ability to bump up to high speed in an emergency or meet maximum airflow requirements, or reset down to low speed for energy conservation.

**Constant Pressure Control** - Control the Vari-Green® motor via static (variable volume) or velocity (constant CFM) pressure on the inlet or outlet side of the fan. Available with duct or room probes for use in:

- Multifamily structures including apartments, condos, hotels; residential kitchens and bathrooms
- Institutional facilities such as schools, prisons, multi-story office buildings; bathrooms

**Air Quality, Volatile Organic Compounds (VOC) -** Control a Vari-Green motor via changes in VOCs. VOCs are gasses that are emitted from humans, building materials, perfumes, foods, and furniture off-gassing. The range is 0-2000 CO<sub>2</sub> PPM equivalent.

- Institutional facilities including school, courthouse, hospital bathrooms, waiting rooms, cafeteria
- Commercial buildings such as office buildings in conference rooms, bathrooms or breakroom

**Air Quality for Temperature and Humidity** - Control the Vari-Green motor via changes in temperature, humidity, or both. The range is 32° to 120°F and 0% to 100% relative humidity.

- Multifamily structures including apartments, condos, hotels, with placement in bathrooms and utility rooms
- Commercial buildings such as office buildings for placement in general office space, conference rooms, utility rooms, and bathrooms

### Sound Data

The sound data shown in this catalog has been presented to aid the system designer in selecting a fan that will meet the desired sound criteria. Some levels have been included on the performance pages to provide a means of quickly evaluating the relative loudness of a fan selection.

### What is a sone?

Sones are an internationally recognized unit of loudness. In practical terms, the loudness of one sone is equivalent to the sound of a quiet refrigerator measured from five feet away in an acoustically average room. A sone is a single number rating, indicating the inlet noise derived from the eight audible octave bands. Sones are a linear measurement of sound level. For example, a sound level of 10 sones is twice as loud as 5 sones.

### Can radiated noise increase sound levels?

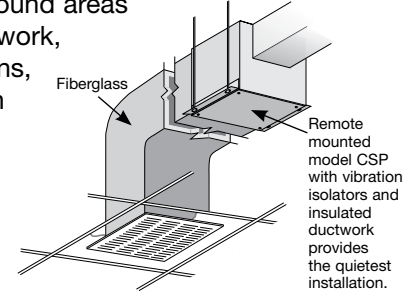
Radiated noise from fan housings can cause unacceptable sound levels on any brand of fan. The size of these fans allows them to be placed in areas where this noise will be transmitted to the conditioned space through walls or ceilings. Where possible, cabinet fans should be located in remote parts of the ventilation system.

### Where should an SP or CSP fan be used?

Model SP and CSP fans are designed for the lowest possible sound levels. Forward-curved wheels, insulated housings and vibration isolators between the motor and housing contribute to quiet, efficient operation. Applied and installed as recommended, SP and CSP sound levels will fall well within the ranges shown in the Suggested Limits for Room Loudness chart. For applications where sound levels are critical, a remote mounted CSP with duct board is recommended. Placement of SP and CSP fans

should take into account the desired sound level at the location of the listener.

The compact size of SP and CSP fans provides more flexibility to place these fans and achieve the lowest sound levels. Critical sound areas such as insulated ductwork, flexible duct connections, or placement of the fan in a remote section of the ductwork (away from the critical area) offer the best means of meeting the desired sound levels.



### Why are low sound levels important?

The main application of a ceiling exhaust fan under 200 cfm is typically to exhaust odor and humid air from a bathroom. If a bathroom fan is excessively loud, the occupant will seldom use it. Lack of proper ventilation may lead to a variety of concerns, including damage to finishes, walls, ceilings, and even health issues. Greenheck is proud to offer some of the quietest fans on the market.

### Why is Indoor Air Quality (IAQ) important?

According to the United States Environmental Protection Agency (EPA), the concentration of some pollutants are often 2 to 5 times higher indoors than outdoors. The average American spends approximately 90% of their time indoors, so IAQ is extremely important. Poor moisture control may lead to mold and mildew issues that may cause health concerns. Seemingly harmless items such as building materials, personal care items and cleaning agents may contribute to poor IAQ. Greenheck ceiling exhaust fans are guaranteed to exhaust moisture and odors effectively from your bathroom.

When room sound levels are critical, such as in executive offices, conference rooms, hospital operating rooms, and school study areas, a CSP fan is the best choice. Shown here is a comparison of SP and CSP fans of the same size, with equal performance in typical installations. The CSP shows lower sone values.

Suggested Limits for Room Loudness		
Sones	dB(A)	
1.3-4	32-48	Private homes (rural and suburban)
1.7-5	36-51	Conference rooms
2-6	38-54	Hotel rooms, libraries, movie theatres, executive offices
2.5-8	41-58	Schools and classrooms, hospital wards and operating rooms
3-9	44-60	Court rooms, museums, apartment houses, private homes (urban)
4-2	48-64	Restaurants, lobbies, general open offices, banks
5-15	51-67	Corridors and halls, cocktail lounges, washrooms and toilets
7-21	56-72	Hotel kitchens and laundries, supermarkets

Model	CFM	WG	FRPM	Sones
SP-A410	405	1/8	1000	3.0
CSP-A410	403	1/8	1000	1.5

None value on CSP is with insulated inlet duct.

Reprinted from AMCA Publication 302 (Application of Sone Ratings for Non-ducted Air Moving Devices, with room-sone-dBA correlations) with the written permission from AMCA International, Inc., 30 West University Drive, Arlington Heights, IL 60004-1893.

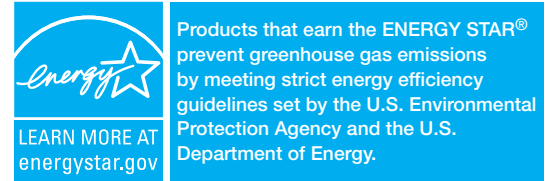
NOTE: Values above are for room loudness and are not sound ratings. Room loudness is the resulting level in a conditioned space after the acoustical qualities of the room have been accounted for.



ENERGY STAR® is a market-based partnership formed to reduce greenhouse gas emissions through energy efficiency and make it easier for consumers to identify energy-efficient products that offer savings, performance, features, and comfort.

To earn the ENERGY STAR label, products must meet strict energy-efficient standards set by the U.S. Environmental Protection Agency (EPA) for energy consumption, air and sound performance. Fan models that are ENERGY STAR certified are identified in this catalog.

*Note: ENERGY STAR is only for products 500 cfm or less.*



Fans that are ENERGY STAR certified include: SP-A70, SP-A90, SP-A110, SP-A125, SP-A200, SP-A250, SP-B50, SP-B70, SP-B80, SP-B90, SP-B110ES, SP-A50-90-VG, SP-A90-130-VG, CSP-A110, CSP-A125, CSP-A200, CSP-A390-VG

## Codes and Standards

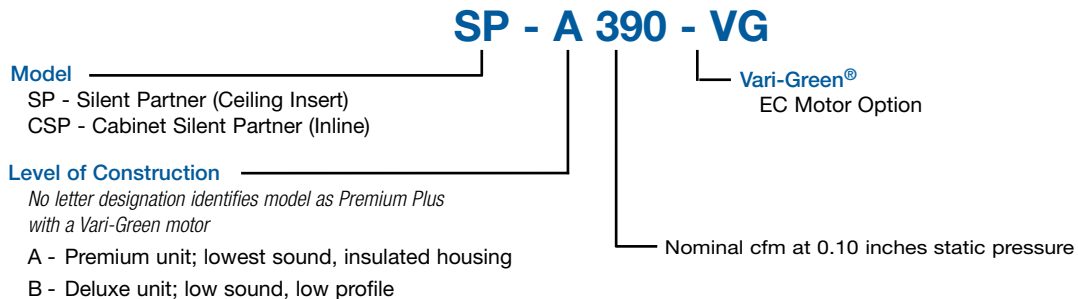
ASHRAE 62.2 sets the minimum indoor air quality (IAQ) standards and minimum ventilation rates in commercial and residential buildings. This standard is used as the basis for state and local building codes such as the Washington State Energy Code. Select Greenheck fans are able to provide low speed continuous ventilation and cycle to high speed upon activation of a switch or a sensor.

California Title 24 states that each bathroom shall be mechanically ventilated and shall comply with the following: Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control. Humidity controls shall be capable of adjustment between a relative humidity range of less than or equal to 50 percent to a maximum of 80 percent.

Multiple Greenheck ceiling exhaust fans can be used to comply with these latest codes and standards.

## Model Number Code

The model number code system is designed to completely identify the fan. The remainder of the model code is determined by the size and performance of the fan.



# Model SP-A-VG

## Premium Constant CFM Ceiling Exhaust Fan

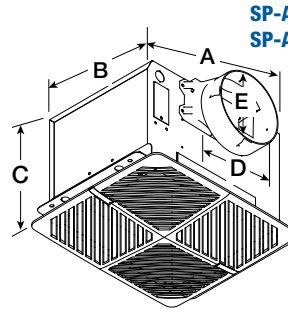


### Model SP-A-VG

#### Model SP-A-VG Dimensions

Model	A	B	C	D	E	Grille	Unit Weight
SP-A50-90-VG	13 $\frac{1}{4}$ (337)	10 $\frac{5}{8}$ (270)	9 (229)	6 (152)		14 $\frac{7}{8}$ x 13 $\frac{1}{4}$ (378 x 337)	12 (5)
SP-A90-130-VG							

All dimensions are in inches (millimeters) and weight in pounds (kilograms).  
 Outlet connection width is 1 in. (25 mm). Mounting bracket width is 1 $\frac{1}{2}$  in. (38 mm).  
 For complete dimensional information, see CAPS® submittal drawings.



SP-A50-90-VG  
 SP-A90-130-VG



\*Amp and Watt draw is approximate and may vary based on motor manufacturer. Below performance is for 115V.

#### Model SP-A-VG Performance

Model	ENERGY STAR®	CFM Selection	RPM	Max Amps*	Max Watts*	CFM/Static Pressure in Inches wg										
						0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875		
SP-A50-90-VG	☆	50	808	0.29	22.1	CFM	50	50	50	50	50	50	50	50	50	
						Sones	<0.3	<0.3	0.6	0.7	1.5	2.0	2.0	2.5	2.5	
						CFM/Watt*	56.5	20.7	17.3	9.9	6.5	5.4	4.0	3.4	2.9	
		70	838	0.30	23.3	CFM	70	70	70	70	70	70	70	70	70	66
						Sones	<0.3	<0.3	0.4	0.9	1.4	2.0	2.0	3.0	2.5	
						CFM/Watt*	56.2	19.7	17.4	10.4	7.2	5.4	4.2	3.5	3.0	
		90	887	0.31	24.1	CFM	90	90	90	90	90	90	90	90	82	71
						Sones	<0.3	0.5	0.6	1.0	1.5	2.0	2.0	2.5	2.5	
						CFM/Watt*	28.7	18.1	15.4	10.4	7.0	5.4	4.5	3.6	3.2	
SP-A90-130-VG	☆	90	887	0.31	24.1	CFM	90	90	90	90	90	90	90	82	71	
						Sones	<0.3	0.5	0.6	1.0	1.5	2.0	2.0	2.5	2.5	
						CFM/Watt*	28.7	18.1	15.4	10.4	7.0	5.4	4.5	3.6	3.2	
		110	960	0.31	24.2	CFM	110	110	110	110	110	110	102.5	82	67	
						Sones	0.4	0.9	0.8	1.3	1.5	2.5	2.5	2.5	2.5	
						CFM/Watt*	22.7	14.7	13.3	9.4	6.9	5.3	4.4	3.5	3.1	
		130	1041	0.32	24.2	CFM	130	130	130	130	130	122.7	99.1	80.8	63.7	
						Sones	1.2	1.4	1.5	2.0	2.5	3.0	2.5	2.5	2.5	
						CFM/Watt*	16.2	12.0	11.1	8.5	6.2	5.1	4.2	3.4	3.0	
Watts*	9.1	11.7	12.7	16.4	22.4	23.9	23.5	23.5	23.4	22.4						

Performance certified is for model SP exhaust for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft damper. Speed (rpm) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in spherical fan sones at 5 ft (1.5 m) in a spherical free field calculated per Annex B of AMCA 311. Values shown are for installation type B: free inlet spherical fan sone levels.

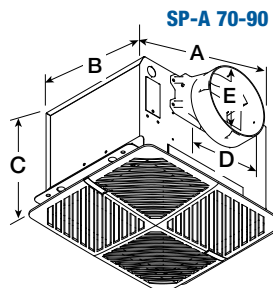
# Model SP-A Premium Ceiling Exhaust Fan

## Model SP-A Dimensions

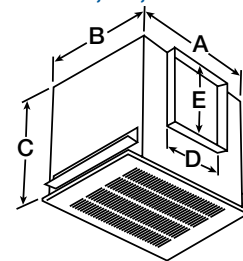
Model	A	B	C	D	E	Grille	Unit Weight
70, 90	13¼ (337)	10⅝ (270)	9 (229)	6 (152)		14⅞ x 13¼ (378 x 337)	12 (5)
110, 125	13¼ (337)	10⅝ (270)	9 (229)	8 (203)	6 (152)		17 (8)
200, 250, 390, 390-VG	14 (356)	11⅞ (302)	11¼ (286)	8 (203)	8 (203)		24 (11)
410, 510, 510-VG, 710-VG	18 (457)	14⅜ (365)	14½ (368)	8 (203)	8 (203)	19⅞ x 16⅜ (492 x 416)	31 (14)
700, 700-VG	23⅝ (600)	11⅝ (295)	11⅝ (295)	19½ (495)	8 (203)	25⅝ x 13½ (638 x 343)	34 (15)
710, 780	18 (457)	14⅜ (365)	14½ (368)	10 (254)	8 (203)	19⅞ x 16⅜ (492 x 416)	34 (15)
900, 1050, 1050-VG, 1300, 1550	23¾ (603)	14⅜ (365)	14½ (368)	17⅞ (443)	8 (203)	25 x 16⅜ (635 x 416)	56 (25)

All dimensions are in inches (millimeters) and weight in pounds (kilograms).  
Outlet connection width is 1 in. (25 mm). Mounting bracket width is 1½ in. (38 mm).  
For complete dimensional information, see CAPS® submittal drawings.

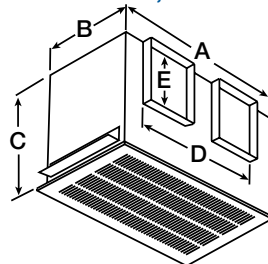
\*Amp and Watt draw is approximate and may vary based on motor manufacturer.  
Below performance is for 115V.



SP-A 110-510, 390-VG, 510-VG,  
710-VG, 710, 780



SP-A 700, 700-VG,  
1050-VG, 900-1550



Model	ENERGY STAR®	Control Voltage	RPM	Amps*	Max. Input Watts*	CFM / Static Pressure in Inches wg											
						0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875	1.0	1.25	
SP-A70	☆		790	0.14	15.6	CFM	88	74	71	54							
						Sones	<0.3	<0.3	<0.3	<0.3							
						CFM/Watt*	5.64	4.97	4.83	4.12							
SP-A90	☆		870	0.14	16.9	CFM	114	101	98	80							
						Sones	<0.3	<0.3	<0.3	0.4							
						CFM/Watt*	6.75	6.20	6.95	5.33							
SP-A110	☆		950	0.16	19.4	CFM	130	119	115	98							
						Sones	<0.3	<0.3	<0.3	0.5							
						CFM/Watt*	6.70	6.33	6.15	5.54							
SP-A125	☆		1010	0.19	23	CFM	144	130	127	109							
						Sones	0.4	0.4	0.4	0.6							
						CFM/Watt*	6.26	5.73	5.62	5.00							
SP-A200	☆		1000	0.56	67	CFM	267	246	242	224	199	162	109	68			
						Sones	2.0	2.0	2.0	2.5	3.0	3.5	4.0	4.5			
						CFM/Watt*	4.76	4.42	4.34	4.10	3.75	3.19	2.29	1.49			
SP-A250	☆		900	0.47	56.1	CFM	294	274	271	250	230	201	147	92			
						Sones	2.5	2.5	2.5	3.0	3.5	4.0	5.0	5.0			
						CFM/Watt*	4.39	4.18	4.12	3.89	3.67	3.36	2.65	1.80			
SP-A390			1350	1.34	135	CFM	410	395	391	368	345	325	307	279			
						Sones	4.5	4.5	4.5	4.5	5.0	5.0	5.5	5.5			
						CFM	276	251	248	233	215	196	173	146	120	93	
SP-A390-VG	6	935	0.70	47	Sones	2.0	2.0	2.0	2.5	3.0	3.5	4.0	5.0	6.0	6.0		
					CFM	410	395	390	370	361	349	338	325	307	294		
					Sones	5.0	5.0	5.0	5.0	5.0	6.0	6.5	7.0	7.0	7.0		
SP-A410		1000	1.74	121	CFM	443	413	405	351	306							
					Sones	3.5	3.0	3.0	3.0	3.5							
					CFM	557	512	501	439	392	325						
SP-A510		1070	3.30	224	Sones	5.0	4.5	4.5	4.5	4.5	4.0						
					CFM	399	354	341	255								
					Sones	4.5	4.0	4.0	3.5								
SP-A510-VG		850	0.75	49.1	CFM	604	583	576	540	495	443	377					
					Sones	8.0	8.0	8.0	7.5	7.0	7.0	6.5					
					CFM	790	762	753	728	701	659	621	547	474	382		
SP-A700		1015	2.98	351	Sones	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.5		
					CFM	568	527	517	466	419	372	329	275	223	170	100	
					Sones	3.5	3.5	3.5	3.5	4.0	4.5	5.0	6.0	7.0	7.0	9.0	
SP-A700-VG	6	1275	1.82	111	CFM	801	774	766	729	699	666	634	597	569	530	418	
					Sones	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.5	7.5	8.0	9.0	
					CFM	752	714	701	653	588	486	320					
SP-A710		1080	4.40	285	Sones	6.0	6.0	6.0	6.0	6.0	5.5	5.5					
					CFM	441	410	397	327								
					Sones	4.5	4.5	4.0	4.0								
SP-A710-VG		925	0.96	60.4	CFM	709	685	677	656	621	580	534	483	399			
					Sones	9.5	9.5	9.0	9.0	9.0	8.5	8.5	8.0	8.0			
					CFM	1450	1350	1300	1200	1100	1000	900	800	700	600	500	400

# Model SP-A

## Premium Ceiling Exhaust Fan



Model	ENERGY STAR®	Control Voltage	RPM	Amps*	Max. Input Watts*	CFM / Static Pressure in Inches wg											
						0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875	1.0	1.25	
SP-A780			1600	3.30	348	CFM	812	782	775	741	704	665	625	581			
						Sones	8.5	8.5	8.5	8.0	8.0	8.0	8.0	8.0			
SP-A900			1055	2.78	301	CFM	971	925	915	866	814	754	694	621	433	327	
						Sones	6.0	5.5	5.0	5.0	5.0	5.0	5.5	5.5	6.0	6.5	
SP-A1050			1250	4.05	438	CFM	1144	1098	1084	1032	987	935	875	809	734	561	
						Sones	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5	7.0	7.0	
SP-A1050-VG		6	1050	1.94	120	CFM	838	789	779	735	685	632	579				
						Sones	4.0	4.0	4.0	4.0	4.0	4.5	5.0				
		10	1225	3.75	240	CFM	1162	1106	1092	1023	944	831	668				
						Sones	7.5	7.0	7.0	7.0	6.5	6.0	5.0				
SP-A1300			1535	5.33	607	CFM	1396	1360	1348	1304	1260	1216	1168	1111	1045	971	701
						Sones	10.0	10.0	10.0	9.5	9.5	9.5	9.0	9.0	9.0	8.5	8.5
SP-A1550			1695	6.07	695	CFM	1559	1518	1503	1456	1402	1346	1300	1239	1172	1095	876
						Sones	11.5	11.0	11.0	11.0	10.5	10.0	10.0	9.5	9.5	9.0	8.5

\*Amp and Watt draw is approximate and may vary based on motor manufacturer. Above performance is for 115V.

Performance certified is for model SP exhaust for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft damper. Speed (rpm) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in spherical fan sones at 5 ft (1.5 m) in a spherical free field calculated per Annex B of AMCA 311. Values shown are for installation type B: free inlet spherical fan sone levels.

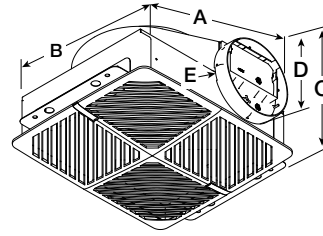
# Model SP-B

## Deluxe and Standard Ceiling Exhaust Fan

### Model SP-B

#### Model SP-B Dimensions

Model	A	B	C	D	E	Grille	Unit Weight
50, 70, 80	13 <sup>7</sup> / <sub>8</sub> (352)	11 <sup>1</sup> / <sub>2</sub> (292)	7 (179)	6 (152)	1 <sup>1</sup> / <sub>4</sub> (32)	14 <sup>7</sup> / <sub>8</sub> x 13 <sup>1</sup> / <sub>4</sub> (378 x 337)	9 (4)
90, 110, 110ES, 150, 200	13 <sup>7</sup> / <sub>8</sub> (352)	11 <sup>1</sup> / <sub>2</sub> (292)	7 (179)	6 (152)	1 <sup>1</sup> / <sub>4</sub> (32)		10 (5)



All dimensions are in inches (millimeters) and weight in pounds (kilograms). Mounting bracket width is 1<sup>1</sup>/<sub>2</sub> in. (38 mm). For complete dimensional information, see CAPS® submittal drawings.

◆Continuous Ventilation Compatible: Low speed continuous operation is adjustable from 30 cfm to full rated fan speed.

\*Amp and Watt draw is approximate and may vary based on motor manufacturer. Below performance is for 115V.

#### Model SP-B Performance

Model	ENERGY STAR®	Continuous Ventilation Compatible	RPM	Amps*	Max. Input Watts*	CFM / Static Pressure in Inches wg															
						0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875	1.0						
SP-B50	☆		580	0.13	15.9	CFM	79	63	60	45	28										
						Sones	<0.3	0.4	0.5	1.1	2.5										
						CFM/Watt*	4.97	4.04	3.87	2.99	1.92										
						Watt*	15.89	15.59	15.50	15.06	14.57										
SP-B70	☆		675	0.16	17.1	CFM	89	75	71	54	35										
						Sones	0.8	0.8	0.9	1.4	2.0										
						CFM/Watt*	5.20	4.46	4.25	3.27	2.27										
						Watt*	17.10	16.80	16.70	16.50	15.41										
SP-B80	☆	◆	900	0.16	18.6	CFM	94	81	77	62	46										
						Sones	0.8	0.9	0.9	1.3	2.0										
						CFM/Watt*	5.05	4.40	4.21	3.44	2.71										
						Watt*	18.60	18.40	18.30	18.00	16.95										
SP-B90	☆		700	0.18	21.1	CFM	104	92	89	72	57										
						Sones	1.0	1.0	1.0	1.5	2.0										
						CFM/Watt*	4.93	4.40	4.24	3.48	2.88										
						Watt*	21.10	20.90	21.00	20.70	19.77										
SP-B110			950	1.14	80.2	CFM	133	114	110	97	95	94	91	85	72	50					
						Sones	1.5	1.5	1.5	2.0	2.0	2.0	3.0	3.5	4.0	4.5					
						CFM/Watt*	130	118	115	100	86	73	58	37							
						Watt*	1.5	1.5	1.5	2.0	2.5	3.0	3.5	4.0							
SP-B110ES	☆	◆	650	0.25	29.7	CFM	4.38	4.03	3.95	3.50	3.08	2.70	2.24	1.48							
						Sones	29.65	29.27	29.15	28.57	27.89	27.08	25.95	24.97							
						CFM/Watt*	160	156	155	154	152	149	147	138	123	92					
						Watt*	2.5	2.5	2.5	3.0	3.5	3.5	4.0	4.5	4.5	5.0					
SP-B150			1050	1.70	128	CFM	208	211	212	216	216	210	197	176	157	130					
						Sones	5.0	5.5	5.5	6.0	6.5	6.5	6.5	6.5	6.0	6.0					
						CFM/Watt*	2.5	2.5	2.5	3.0	3.5	3.5	4.0	4.5	4.5	5.0					
						Watt*	208	211	212	216	216	210	197	176	157	130					
SP-B200			980	2.41	185	CFM	208	211	212	216	216	210	197	176	157	130					
						Sones	5.0	5.5	5.5	6.0	6.5	6.5	6.5	6.5	6.0	6.0					
						CFM/Watt*	2.5	2.5	2.5	3.0	3.5	3.5	4.0	4.5	4.5	5.0					
						Watt*	208	211	212	216	216	210	197	176	157	130					

Performance certified is for model SP exhaust for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft damper. Speed (rpm) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in spherical fan sones at 5 ft (1.5 m) in a spherical free field calculated per Annex B of AMCA 311. Values shown are for installation type B: free inlet spherical fan sone levels.

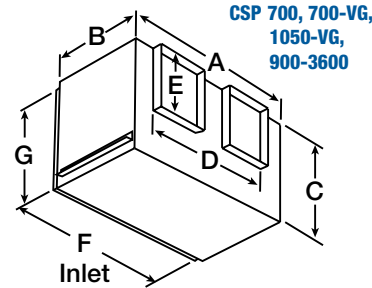
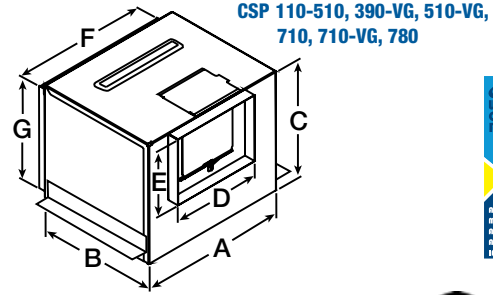
# Model CSP-A

## Premium Inline Cabinet Fan



### Model CSP-A Dimensions

Model	A	B	C	D	E	F	G	Unit Weight
110, 125	13¼ (337)	10⅝ (270)	9 (229)	8 (203)	6 (152)	12 (305)	9¼ (235)	16 (7)
200, 250, 390, 390-VG	14 (356)	11⅞ (302)	11¼ (286)	8 (203)	8 (203)	12⅞ (327)	10 (254)	23 (10)
410, 510, 510-VG, 710-VG	18 (457)	14⅞ (365)	14½ (368)	8 (203)	8 (203)	16⅞ (429)	13¼ (337)	36 (16)
700, 700-VG	23⅝ (600)	11⅝ (295)	11⅝ (295)	19½ (495)	8 (203)	22⅝ (575)	10½ (267)	34 (15)
710, 780	18 (457)	14⅞ (365)	14½ (368)	10 (254)	8 (203)	16⅞ (429)	13¼ (337)	36 (16)
900, 1050, 1050-VG, 1300, 1550	23¾ (603)	14⅞ (365)	14½ (368)	17⅞ (443)	8 (203)	22⅝ (575)	13¼ (337)	59 (27)
1750, 2150	35 (889)	14¾ (375)	14¾ (375)	28 (711)	6 (152)	32¾ (832)	13 (330)	68 (31)
3300-VG	45½ (1156)	16½ (419)	16½ (419)	40 (1016)	11 (279)	43¼ (1099)	14⅞ (371)	122 (55)



All dimensions are in inches (millimeters) and weight in pounds (kilograms). Inlet and outlet connection widths are 1 in. (25 mm). Mounting bracket width is 1½ in. (38 mm). For complete dimensional information, see CAPS® submittal drawings.

Model	ENERGY STAR®	Control Voltage	RPM	Amps*	Max. Input Watts*	CFM / Static Pressure in Inches wg											
						0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875	1.0		
CSP-A110	☆		950	0.16	19.7	CFM	131	111	107	85	38						
						Sones	0.8	0.8	0.8	0.9	0.9						
						CFM/Watt*	6.65	5.78	5.61	4.70	2.39						
						Watts*	19.7	19.2	19.1	18.1	15.9						
CSP-A125	☆		980	0.19	22.4	CFM	149	129	125	103	52						
						Sones	1.1	1.1	1.1	1.0	1.2						
						CFM/Watt*	6.64	5.82	5.65	4.79	2.61						
						Watts*	22.4	22.2	22.1	21.5	19.9						
CSP-A200	☆		825	0.48	56.8	CFM	264	240	235	214	191	154	98	62			
						Sones	0.6	0.4	0.5	0.9	1.0	1.3	1.5	1.5			
						CFM/Watt*	4.65	4.28	4.20	3.89	3.58	3.04	2.10	1.38			
						Watts*	56.8	56.1	55.9	55.0	53.4	50.7	46.7	45.1			
CSP-A250			1000	0.79	67	CFM	266	246	241	221	205	187	165	132			
						Sones	0.9	1.0	1.0	2.0	2.5	3.0	2.5	2.5			
						CFM/Watt*	66.5	65.6	65.4	64.0	62.7	61.2	59.4	56.6			
						Watts*	412	400	397	382	363	339	324	309			
CSP-A390			1350	1.33	161	CFM	412	400	397	382	363	339	324	309			
						Sones	2.0	2.0	2.0	2.5	3.0	4.0	4.5	4.5			
						CFM/Watt*	160.8	158.5	157.9	152.4	147.9	141.8	135.4	130.0			
						Watts*	270	244	239	212	191	164	137	104	78	57	
CSP-A390-VG	☆	6	870	0.66	42	CFM	270	244	239	212	191	164	137	104	78	57	
						Sones	0.3	<0.3	0.3	0.6	0.7	1.1	1.4	2.0	2.0	2.5	
						Watts*	22.8	25.0	25.2	27.0	29.8	33.4	36.3	39.6	40.6	42.2	
		10	1260	1.45	98	CFM	417	400	395	369	350	335	322	307	290	271	
						Sones	1.2	1.3	2.0	1.3	0.9	1.4	2.0	2.5	3.0	3.0	
						Watts*	77.1	79.3	80.3	82.9	83.5	86.8	89.6	93.1	94.9	97.7	

\*Amp and Watt draw is approximate and may vary based on motor manufacturer. Above performance is for 115V.

# Model CSP-A

## Premium Inline Cabinet Fan



Model	ENERGY STAR®	Control Voltage	RPM	Amps*	Max. Input Watts*	CFM / Static Pressure in Inches wg															
						0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875	1.0	1.25	1.5				
CSP-A410			1000	1.87	132	CFM	447	441	403	364	317	217									
		Sones				1.5	1.5	1.5	2.0	2.0	2.0										
		Watts*				132.2	131.7	128.7	125.6	120.5	112.4										
CSP-A510			1070	3.11	218	CFM	545	514	506	464	405	324									
		Sones				2.5	2.0	2.0	2.0	2.0	2.5										
		Watts*				218.2	214.3	213.3	207.0	196.4	182.8										
CSP-A510-VG			850	0.86	55	CFM	428	358	338	238											
		Sones				0.8	0.6	0.5	0.3												
			1275	2.40	160	CFM	621	590	583	540	479	414	328								
		Sones				1.5	1.4	1.4	1.3	1.2	1.5	2.0									
							Watts*	154.4	159.6	160.1	156.1	140.7	123.1	99.9							
							CFM	866	827	817	758	720	694	648	594	419	330				
						Sones	1.1	1.1	1.1	1.1	1.2	1.5	2.0	2.0	2.5	3.0					
CSP-A700			1035	3.16	368	Watts*	367.9	351.0	347.0	330.0	321.8	312.0	298.3	284.1	249.6	231.4					
		CFM				625	570	558	504	450	402	348	261	213	167	67					
		Sones				<0.3	<0.3	<0.3	<0.3	<0.3	0.8	1.1	1.5	2.0	2.5	3.0					
CSP-A700-VG			1275	1.83	110	Watts*	55.6	58.7	60.0	63.5	69.4	76.5	83.8	89.5	95.3	101.0	108.2				
		CFM				895	857	848	803	760	725	688	647	604	556	479					
			1450	3.53	216	Sones	1.0	1.0	1.0	1.0	1.0	1.2	1.5	1.5	2.0	2.5	3.0				
		Watts*				157.1	160.6	161.3	168.5	169.4	173.1	179.9	187.1	193.6	201.4	215.3					
							CFM	737	698	688	635	567	475	334							
							Sones	2.5	2.5	2.5	2.5	2.0	2.0	2.0							
						Watts*	332.5	324.1	322.0	310.8	295.8	277.4	255.2								
CSP-A710			925	1.08	68	CFM	470	415	405	322											
		Sones				0.6	0.4	0.4	0.4												
			1450	3.51	236	CFM	730	699	690	654	622	574	514	446	349						
		Sones				2.0	2.0	2.0	2.0	2.0	2.0	2.5	3.0	3.0							
							Watts*	236.0	234.2	231.4	223.1	218.9	200.8	180.0	156.8	119.9					
							CFM	813	784	777	742	707	672	638	603	567	527				
						Sones	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5						
CSP-A780			1600	3.77	496	Watts*	496.4	493.0	492.2	488.0	467.5	453.1	441.8	423.1	407.2						
		CFM				930	875	865	811	755	686	558	411	290							
		Sones				0.4	0.3	0.3	0.3	0.4	0.9	1.4	2.0	2.5							
CSP-A900			895	2.91	318	Watts*	318.3	308.1	305.5	297.7	289.8	278.0	260.9	245.7	225.5						
		CFM				1108	1059	1050	1001	958	912	857	793	723	498						
		Sones				1.1	1.0	1.0	1.0	1.1	1.3	1.5	2.0	2.0	3.0						
CSP-A1050			1070	4.29	467	Watts*	466.8	451.2	450.1	440.1	430.8	419.3	404.3	389.1	372.7	329.6					
		CFM				805	754	741	689	642	597	547									
			1050	1.90	115	Sones	<0.3	<0.3	<0.3	0.4	0.5	1.0	1.5								
		Watts*				79.8	85.2	85.0	91.4	97.4	105.5	114.9									
			1225	3.85	241	CFM	1131	1105	1092	1047	998	900	758								
		Sones				1.0	0.9	0.9	1.0	1.2	1.3	1.4									
						Watts*	220.7	231.5	231.5	239.7	239.9	216.7	173.9								
CSP-A1300			1300	6.82	761	CFM	1313	1283	1277	1245	1213	1181	1144	1098	1046	978	791				
		Sones				2.0	2.0	2.0	2.0	2.0	2.0	2.5	3.0	3.5	3.5						
		Watts*				761.3	728.3	720.9	694.0	667.0	640.5	608.3	578.6	542.9	509.9	416.3					
CSP-A1550			1625	8.18	934	CFM	1735	1689	1680	1627	1570	1511	1453	1387	1322	1257	1085				
		Sones				5.0	5.0	5.0	4.5	4.0	4.5	4.5	4.5	4.5	5.0	5.0					
		Watts*				934.3	902.7	899.6	865.1	837.0	803.2	774.9	736.0	698.4	664.3	577.7					
CSP-A1750			1325	10.30	1153	CFM	2012	1954	1943	1871	1805	1738	1669	1593	1508	1416	1152	705			
		Sones				3.0	3.0	3.0	3.0	3.0	3.5	3.5	4.0	4.5	4.5	5.0	5.0				
		Watts*				1152.8	1105.0	1095.6	1037.8	989.5	947.5	909.7	867.6	823.5	781.5	673.3	520.0				
CSP-A2150			790	11.55	1285	CFM	2167	2110	2082	2014	1963	1915	1853	1783	1702	1614	1400	887			
		Sones				3.0	3.0	3.0	3.0	3.0	3.5	3.5	4.0	4.0	4.5	5.0	5.0				
		Watts*				1284.7	1244.2	1214.2	1150.0	1111.8	1062.9	1010.9	961.2	912.8	866.3	764.6	556.8				
CSP-A3300-VG			820	6.18	507.3	CFM	2445	2367	2344	2264	2195	2149	2072	1965	1851	1664					
		Sones				2.5	2.5	2.0	2.0	2.5	3.0	3.0	3.5	4.0	4.0						
			1090	12.34	1048.9	Watts*	342.9	350.5	353.3	375.8	397.9	408.6	433.6	457.5	476.7	507.3					
		CFM				3401	3342	3312	3271	3154	3083	2956	2879	2766	2439						
							Sones	5.0	5.0	4.5	4.5	4.0	4.5	4.5	5.0	4.5					
							Watts*	955.4	972.8	979.8	1007.7	1023.1	1048.8	1000.7	966.9	928.3	803.9				

\*Amp and Watt draw is approximate and may vary based on motor manufacturer. Above performance is for 115V.  
 Performance certified is for model CSP inline for installation type D: Ducted inlet, Ducted outlet. Performance ratings include the effects of a backdraft damper. Speed (rpm) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in spherical fan sones at 5 ft (1.5 m) in a spherical free field calculated per Annex B of AMCA 311. Values shown are for installation type D: ducted inlet spherical fan sone levels. Ratings do not include the effect of duct end correction. Ratings are based on 10 ft of insulated duct.

## Wheel Options

Greenheck's ceiling and cabinet fans (models SP and CSP) deliver high performance from a forward-curved wheel. The forward-curved wheel design offers both high-efficiency and low sound. Fan wheels are constructed of polypropylene or steel as standard, and most models offer an aluminum wheel option.

- SP/CSP-A models utilize steel, aluminum or polypropylene (standard) wheel construction.
- SP-B models are standard with a polypropylene wheel.

### Polypropylene



### Aluminum



## SP-B Replacement Power Packs

Save installation and downtime by replacing the entire power pack instead of individual components. Available as a replacement part on all current and previous SP-B models.



## Contractor 4 Packs

Save installation time and labor by installing the housing first, then installing the internal components after the sheetrocking, plastering and finishing is done. Housings are packaged in one box, power assemblies and grilles are packaged in another box. Components are shipped to coincide with the phase of your project. (Model SP-B).



## Grille Options

### Standard

Available in white polystyrene finish, with optional motion humidity or combination sensors. All optional sensors have time delay functionality as standard. Available on A70-A390 and B50-B200.

### Aluminum

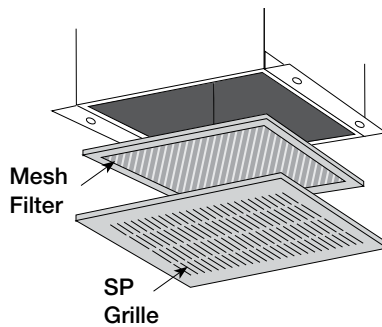
White enamel finish standard for models A410-A1550. Optional for models A70-A390 and B50-B200.





## Filters

Fans used in most applications will collect airborne dirt on wheels and motors over time, even where air is not excessively dirty. Accumulations of dirt on the fan wheel will sharply reduce performance and cause imbalance. Dirt buildup on the motor can cause it to overheat. All of these conditions will shorten the life of the fan. To help reduce this accumulation, washable aluminum mesh filters are available to trap dirt before it enters the fan. These filters should be regularly cleaned to maintain performance. The filter loss chart below shows the effect the filter will have on performance. To determine the added resistance, divide the desired CFM by the filter area (ft<sup>2</sup>). This will give ft/min. Use this with the filter loss chart to get the added resistance. Filters reduce sound levels, in addition to reducing dirt accumulations on the motor and wheel.

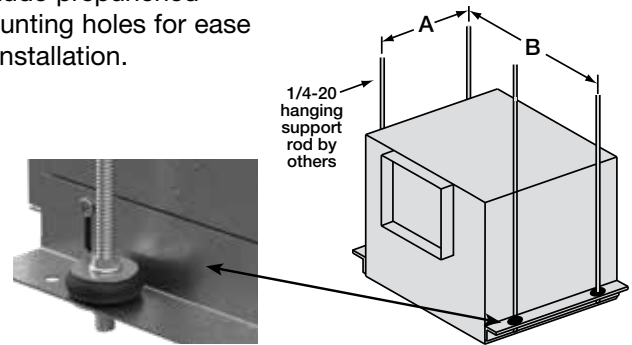


SP Model	*Metal Grille	Filter Area (ft <sup>2</sup> )
SP-A70 - A110	F-210	0.739
SP-B50 - B200, A200 - A390, A390-VG	F-220	0.911
SP-A410 - A510, A510-VG, A710 - A780, A710-VG	F-250	1.518
SP-A900 - A1550, A1050-VG	F-260	2.078

\*Aluminum grille only.

## Hanging Vibration Isolators

Vibration isolator kits are available for suspended installations. Kits include all hardware necessary to mount one unit, with the exception of a 1/4-20 threaded rod to be supplied by others. Fan mounting brackets include prepunched mounting holes for ease of installation.

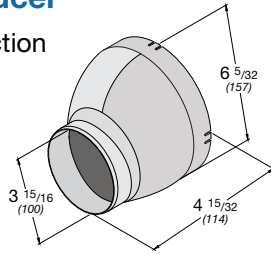


Unit Size	A	B
B50-B200	4½ (114)	15⅝ (397)
A70-A110	5½ (140)	15 (381)
A200-A390, A390-VG	6¾ (171)	15¾ (400)
A410, A510, A510-VG, A710, A710-VG, A780	9¼ (235)	19¼ (502)
A700, A700-VG	5½ (140)	25⅝ (645)
A900, A1050, A1050-VG, A1550	9¼ (235)	25½ (648)
A1300, A1750, A2150	9¼ (235)	36¾ (933)
A3300-VG	9¼ (235)	47¼ (1200)

All dimensions shown in inches (millimeters).

### Transition Duct Reducer

- Durable plastic construction

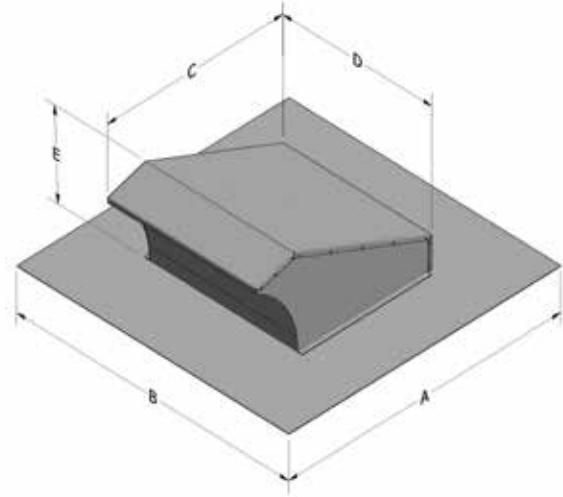


Model	For use with sizes:
473324* 6x4 Reducer	B50-B200
	A70-A90
	A110-A125

All dimensions shown in inches (millimeters).  
 \*Used in conjunction with RDC-6 for SP model sizes A110 and A125

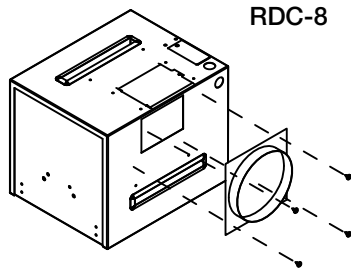
### Model RJ - Pitched Roof Cap

- Steel construction with black enamel finish
- Integral flashing flange
- Built-in birdscreen and damper



### Model RDC - Round Duct Connector

- Replaces the standard square discharge duct connector and damper
- Uses existing mounting holes
- RDC-6 includes a damper (polypropylene construction)
- RDC-8 does not include a damper (galvanized construction)



Model	Use with sizes:	Diameter
RDC-6	A110, A125	6 (152)
RDC-8	A200-A510, A390-VG, A510-VG, A710-VG	8 (203)

All dimensions shown in inches (millimeters).

Model	Use for sizes:	A	B	C	D	E	Throat
RJ-4	B50-B80	13.5	13.5	5.50	4	3.875	4 (102) diameter
RJ-6x9	B90-B200, A70-A390, A390-VG	13.5	13.5	8.50	7	5.125	6 x 9 (152 x 229)
RJ-10x10	A410-A1050 A510-VG, A700-VG, A710-VG, A1050-VG	20	20	11	10	5.25	10 x 10 (254 x 254)

All dimensions shown in inches (millimeters).

## Ceiling Radiation Damper

The National Fire Protection Association (NFPA) Standard 90A requires openings in fire-rated ceiling assemblies to be protected by appropriately rated ceiling radiation dampers. As a result, many local codes require fans installed in fire-rated ceilings to be protected by dampers which are insulated against both heat and flame.

Greenheck offers UL/cUL Classified ceiling radiation dampers that are rated for three hours of fire resistance in a steel/concrete installation. And classified ceiling radiation dampers that are rated for one hour fire resistance in a wood truss (WT) installation.

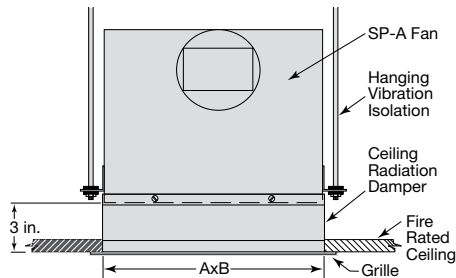
ETL classified ceiling radiation dampers (formerly Warnock Hersey Listed) are also available and rated for one hour combustible (wood) installation.

SP Model	CRD	Length (A)	Width (B)	Height	UL	W.H.	WT
A70-A110	310	13 <sup>1</sup> / <sub>2</sub> (343)	11 <sup>1</sup> / <sub>8</sub> (283)	3 (76)	310 310L	310	310
B50 - B200 A200 - A390 A390-VG	320	14 <sup>3</sup> / <sub>8</sub> (365)	12 <sup>1</sup> / <sub>4</sub> (311)	3 (76)	320 320L	320	320
A410 - A510 A510-VG, A710 - A780 A710-VG	350	18 <sup>7</sup> / <sub>16</sub> (468)	14 <sup>15</sup> / <sub>16</sub> (379)	3 (76)	350	350	NA
A700, A700- VG	700	24 <sup>3</sup> / <sub>16</sub> (614)	12 <sup>1</sup> / <sub>4</sub> (311)	3 (76)	700	NA	NA
A900 - A1550, A1050-VG	360	24 <sup>3</sup> / <sub>16</sub> (614)	14 <sup>15</sup> / <sub>16</sub> (379)	3 (76)	360	360	NA

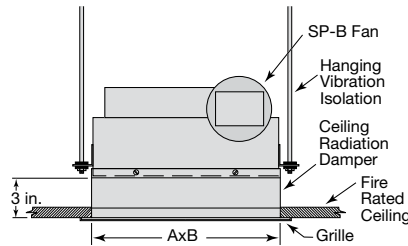
All dimensions shown in inches (millimeters). Add an "L" to all CRD models if fan & light combo is used. \*CRD is approximately 1/4 inch (6 mm) larger than housing dimension. (See Installation, Operation and Maintenance Manual).



### Model SP-A



### Model SP-B



## Dehumidistat (Part 385364)

Dehumidistats are available as a wall mount switch or integrated to the fan. Each sensor automatically detects excess humidity to help control condensation. Includes adjustable sensitivity, time delay (10-45 minutes) and humidity percentage settings.



Wall switch:

- Rated for 120V, 3A, 1/6 hp
- UL Listed

Integrated switch to fan:

- Available on 115V
  - SP-A200 thru SP-A390
  - SP-B50 thru SP-B200

## Speed Controls (Part 385031)

Speed controls may be used on model SP and CSP fans for manual adjustment of the fan's performance (for final system balancing) or to control the fan's output in confined spaces, such as conference or meeting rooms. The fan can be adjusted to 60% of design airflow using a speed control. This reduction in airflow and fan speed is also accompanied by a reduction in noise level. Solid state speed controls are available for a range of applications up to 15 amps. Speed controls can operate more than one fan if the combined total amperage of the fans does not exceed the control rating.



*Internal Mounting*

## Thermostat

### Reverse Acting (Part 380044)

Adjustable for temperature ranges between 30°F to 110°F (-1°C to 43°C), 120V, 16 amp.



### Cooling (Part 386367)

When the temperature in the space rises above the set point of 50°F to 90°F (10°C to 32°C), the contacts close and the thermostat signals the fan to turn on and exhaust air from the space.

- UL Approved
- CSA Certified
- 120V, 16 Amps

## Minimum Ventilation Controls

### (Part 3874214 or 385215)

The SmartExhaust is a bath fan switch that also serves as a ventilation controller and fan delay timer. This product provides whole house exhaust ventilation when combined with any SP-A/SP-B models. Earn LEED and ENERGY STAR points for enhanced exhaust ventilation. Makes standard bath fans ASHRAE 62.2 compliant.

- 120V, 2.5A
- UL Listed



## Switches

Switches may be used on model SP and CSP fans to enable manual control of your fan or fan and light combination.

### 1 Function (Part 872243)

Single pole rocker switch assembly

- Rated for 120-277V, 15A
- UL Listed

### 1 Function with Pilot Light (Part 872242)

Single pole light combination switch assembly

- Rated for 120V, 15A
- UL Listed

### 2 Function (Part 872244)

Two single pole combination switch assembly

- Rated for 120V, 15A
- UL Listed



## Time Delay Switch (Part 874214)

Time delay switches save energy by automatically turning off equipment. The switches are for use with SP and CSP fans, or combinations of fan and light for an extended operating time of fan. Time delay switches act similarly to a standard switch. However, there is a delay of 10 to 60 minutes after turning off the fan.

**Note:** All switch covers are standard white.



## Firestat (Part 380028)

- 120V, 8 Amp to 120V, 4 Amp capacities
- Max element temperature of 350°F (177°C)
- Type II – 5-inch insertion
- Type III – 11 1/2-inch insertion



## Motion Detectors

Motion detectors may be used with SP and CSP fans or fan and light combinations. Motion detectors use a passive infrared motion detector to turn on the fan automatically when motion is sensed. It has a viewing area of 180 degrees provided it is placed in the line of sight.

### Grille-Mounted

Available on models A200 to SP-A390 and B50 to SP-B200.

- Rated for 115V
- UL Listed
- Time delay can be set for 30 seconds to 30 minutes in 5 minute increments



### Wall-Mounted (Part 386339)

For use on fan or lights. Available shipped loose.

- Rated for 115V
- UL Listed
- Requires 2x4 handy box
- Time delay can be set for 30 seconds to 30 minutes in 5 minute increments



## Transformers (Part 383668)

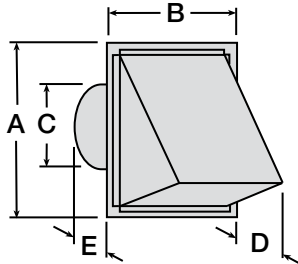
Transformers are available for applications requiring voltage reduction. Selection is based on motor amperage. All transformers are shipped loose. See performance pages for motor amp ratings.



Models	Voltage Ratings	Amp Ratings
T-2.0	230/277V to 115	2.0 Amps
T-4.3	230/277V to 115	4.3 Amps
T-6.5	230/277V to 115	6.5 Amps
T-8.6	230/277V to 115	8.6 Amps

## Model WC - Hooded Wall Cap (Round Connection)

- Aluminum construction - aluminum finish
- For outside wall applications
- Built-in birdscreen (not available on WC-4) and damper
- Powder coating color options selectable

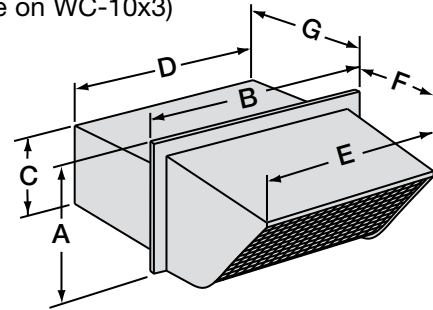


Model	Recommended Sizes	A	B	C	D	E
WC-6	B50-B200, A70-A110	8 (203)	8 (203)	6 (152)	4 <sup>1</sup> / <sub>8</sub> (105)	5 (127)
WC-8	A200-A510	11 (279)	11 (279)	8 (203)	5 <sup>1</sup> / <sub>8</sub> (130)	3 <sup>1</sup> / <sub>2</sub> (89)

All dimensions shown in inches (millimeters).

## Model WC - Hooded Wall Cap (Square or Rectangular Connections)

- Steel construction with black enamel finish
- For outside wall applications
- Built-in birdscreen and damper
- Powder coating color options selectable (not available on WC-10x3)

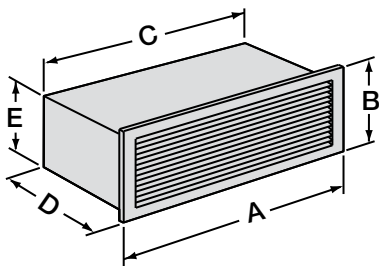


Model	Recommended Sizes	A	B	C	D	E	F	G
WC-10x3	70-250	5 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub> (324)	3 <sup>1</sup> / <sub>4</sub>	10	11 (283)	4 <sup>1</sup> / <sub>4</sub> (108)	5 (127)
WC-8x8	200-510	10 <sup>1</sup> / <sub>4</sub> (260)	10 <sup>1</sup> / <sub>4</sub> (260)	8 <sup>1</sup> / <sub>4</sub> (210)	8 <sup>1</sup> / <sub>4</sub> (210)	8 <sup>1</sup> / <sub>4</sub> (210)	6 <sup>3</sup> / <sub>4</sub> (171)	5 (127)
WC-18x8	700-1550	10 <sup>1</sup> / <sub>4</sub> (260)	20 <sup>1</sup> / <sub>4</sub> (514)	8 <sup>1</sup> / <sub>4</sub> (210)	18 <sup>1</sup> / <sub>4</sub> (464)	18 <sup>1</sup> / <sub>4</sub> (464)	6 <sup>3</sup> / <sub>4</sub> (171)	5 (127)

All dimensions shown in inches (millimeters).

## Model WL - Wall Louvered Discharge

- Anodized aluminum grille
- Built-in damper
- Not recommended for exterior applications exposed to severe weather conditions. An external wall louver is recommended for such applications.

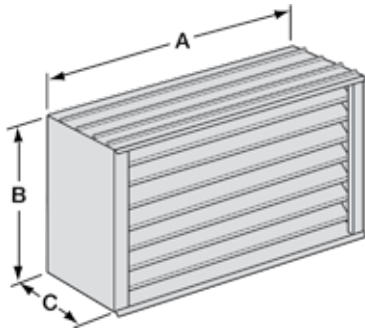


Model	Recommended Sizes	A	B	C	D	E
WL-10x3	70-250	12 (305)	5 <sup>1</sup> / <sub>4</sub> (133)	10 (254)	7 <sup>3</sup> / <sub>4</sub> (197)	3 <sup>1</sup> / <sub>2</sub> (89)
WL-18x6	390-1550	19 <sup>3</sup> / <sub>4</sub> (502)	8 (203)	18 (457)	9 (229)	6 (152)

All dimensions shown in inches (millimeters).

## Model BVE - Brick Vent

- Designed for installation in masonry walls
- Anodized aluminum construction
- Built-in aluminum mesh insect screen

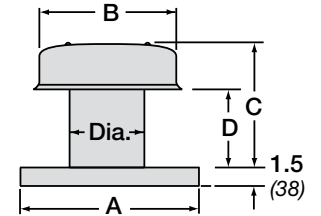


Model	Recommended Sizes	A	B	C
BVE808	70-250	8½ (206)	7¾ (197)	4 (102)
BVE128	390-510	12 (305)	7¾ (197)	4 (102)
BVE157	700-1050	15¾ (397)	7¾ (197)	4 (102)

All dimensions shown in inches (millimeters).

## Model RCC-7 - Curb Cap

- Weathertight aluminum construction
- Integral birdscreen
- Built-in curb cap
- Requires roof curb

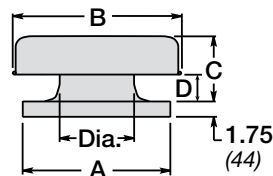


Model	For all sizes:	A	B	C	D	Throat Dia.
RCC-7	70-390	15 (381)	12 (305)	10 (254)	6¾ (162)	7 (178)

All dimensions shown in inches (millimeters).

## Model GRS - Curb Cap

- All aluminum exterior construction
- Galvanized steel internal supports
- Integral birdscreen
- Built-in curb cap
- Requires roof curb

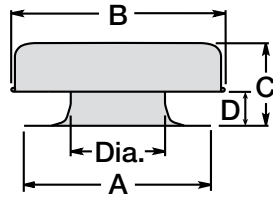


Model	For all sizes:	A	B	C	D	Throat Dia.
GRS-10	410-710	19 (483)	20½ (521)	7¾ (197)	2 (51)	10¼ (260)
GRS-12	780-1050	22 (559)	29 (737)	10 (254)	3½ (89)	12¼ (311)
GRS-16	1300-2150	26 (660)	29 (737)	11 (279)	4¼ (108)	16⅝ (414)
GRS-20	3300-VG	30 (762)	35½ (902)	11¼ (286)	3¾ (95)	20⅞ (516)

All dimensions shown in inches (millimeters).

## Model GRSF - Flashing Flange

- All aluminum exterior construction
- Galvanized steel internal supports
- Integral birdscreen
- Built-in flashing flange

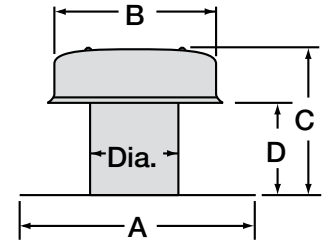


Model	For all sizes:	A	B	C	D	Throat Dia.
GRSF-10	410-710	23 (584)	20½ (521)	7¾ (197)	2 (51)	10¼ (260)
GRSF-12	780-1050	26 (660)	29 (737)	10 (254)	3½ (89)	12¼ (311)
GRSF-16	1300-2150	30 (762)	29 (737)	11 (279)	4¼ (108)	16⅞ (414)
GRSF-20	3300-VG	34 (864)	35½ (902)	11¼ (286)	3¾ (95)	20⅞ (516)

All dimensions shown in inches (millimeters).

## Model RFC-7 - Flashing Flange

- Weathertight aluminum construction
- Integral birdscreen
- Built-in flashing flange

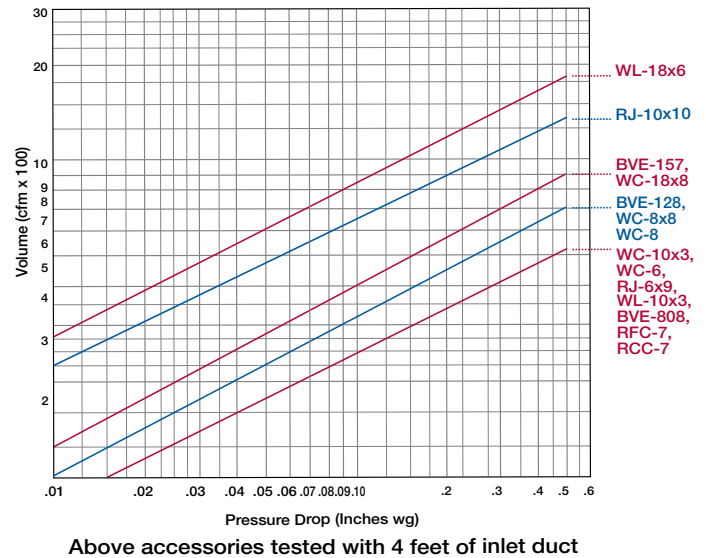


Model	For all sizes:	A	B	C	D	Throat Dia.
RFC-7	70-390	18 (457)	12 (305)	10 (254)	6⅞ (162)	7 (178)

All dimensions shown in inches (millimeters).

## Accessory Pressure Drops

The chart to the right can be used with all of the discharge accessories shown on pages 22, 23 and 24. Specific pressure drop values for these accessories must be included in total system calculations for proper fan selection.







## Vari-Green® Motor

Motor to be an electronic commutation (EC) motor specifically designed for fan applications. AC induction type motors are not acceptable. Examples of unacceptable motors are: shaded pole, permanent split capacitor (PSC), split phase, capacitor start and 3-phase induction type motors. Motors shall be permanently lubricated with heavy-duty ball bearings to match the fan load and prewired to the specific voltage and phase. Internal motor circuitry shall convert AC power supplied to the fan to DC power to operate the motor. Motor shall be speed controllable down to 20% of full speed (80% turndown). Speed shall be controlled by either a potentiometer dial mounted on the motor or by a 0-10 VDC signal. Motor shall be a minimum of 85% efficient at all speeds.

## Vari-Green Control - Remote Dial

Remote Dial shall be a Vari-Green Control specifically designed to provide 0-10 volt DC signal to Greenheck's Vari-Green Motor.

## Vari-Green Control - Two-Speed

Two-speed control shall be a Vari-Green Control specifically designed to allow the Vari-Green Motor to operate at two discrete speeds. Two-speed control shall include two dials that may be set at any point between 0 and 10 volts DC and an integral transformer capable of reducing 115/208-240 volt AC power to 24 volt AC power.

## Vari-Green Control – Indoor Air Quality – Temperature / Humidity

Control to be a packaged indoor air quality control designed to regulate fan speed based on level of temperature and/or relative humidity in a space. Control shall include a Proportional Integral Derivative (PID) feedback loop and shall have labeled terminal strips for easy wiring. Fan shall be direct drive including an electronic commutation (EC) Vari-Green Motor. Control package shall be Vari-Green Indoor Air Quality – Temperature / Humidity Control.

## Vari-Green Control – Indoor Air Quality – VOC (Volatile Organic Compound)

Control to be a packaged indoor air quality control designed to regulate fan speed based on level of VOC concentration in a space. Control shall include a Proportional Integral Derivative (PID) feedback loop and shall have labeled terminal strips for easy wiring. Fan shall be direct drive including an electronic commutation (EC) Vari-Green Motor. Control package shall be Vari-Green Indoor Air Quality – VOC Control.

## Vari-Green Control – Constant Pressure

Control to be a packaged constant pressure control designed to regulate fan speed based on demand. Control shall include a Proportional Integral Derivative (PID) feedback loop and shall have all components prewired to labeled terminal strips for easy wiring. System shall include the appropriate pressure tap and preset pressure transducer. Fan shall be direct drive including an electronic commutation (EC) Vari-Green Motor. Control package shall be Vari-Green Constant Pressure Control.

Indoor installations shall include pressure tap (duct or room) and control box with integral pressure transducer.

Outdoor installations shall include duct pressure tap, pressure transducer, and control box. Control box shall be prewired and in a NEMA-3R weathertight enclosure for mounting outdoors near the fan location.

## Models SP-A50-90-VG and SP-A90-130-VG

Ceiling-mounted exhaust fans shall be of the centrifugal direct drive type. The fan housing shall be constructed of heavy-gauge galvanized steel. The housing interior shall be lined with 0.5 inch acoustical insulation. The outlet duct collar shall include a plastic backdraft damper. Outlet shall be adaptable for horizontal or vertical discharge. The grille shall be constructed of non-yellowing high-impact polystyrene and attached to the housing with hidden attachment screws.



The access for wiring shall be external. The motor disconnect shall be internal and of the plug-in type. The motor shall be mounted on vibration isolators. The fan wheel shall be of the forward-curved centrifugal type and dynamically balanced. The fan shall have a rocker switch with 3 cfm settings located internally. For the SP-A50-90-VG the settings are 50, 70, and 90 cfm. For the SP-A90-130-VG the settings are 90, 110, and 130 cfm. The fan will come preset at 70 cfm for the SP-A50-90-VG and 110 cfm for the SP-A90-130-VG. Upon installation, the switch shall be selected to the desired CFM. All fans shall bear the AMCA Certified Ratings program AMCA Sound and Air Performance seal and shall be UL/cUL Listed. Ceiling or wall-mount fans shall be model SP as manufactured by Greenheck Fan Corporation, Schofield, Wisconsin.

Complete specifications, in Construction Specifications Institute (CSI) format, are available on [greenheck.com](http://greenheck.com).



## Models SP-A70 thru A1550

Ceiling-mounted exhaust fans shall be of the centrifugal direct drive type. The fan housing shall be constructed of heavy-gauge galvanized steel. The housing interior shall be lined with 0.5 inch (13 mm) acoustical insulation. The outlet duct collar shall include a polypropylene backdraft damper on SP-A50 - SP-A90 and a spring-loaded aluminum backdraft damper on SP-A110 and larger. Outlet shall be adaptable for horizontal or vertical discharge. The grille for sizes SP-A50 through SP-A390 shall be constructed of high-impact polystyrene and for sizes SP-A410 through SP-A1550, the grille shall be constructed of aluminum. Grilles shall be non-yellowing.

The access for wiring shall be external. The motor disconnect shall be internal and of the plug-in type. The motor shall be mounted on vibration isolators. The fan wheel shall be of the forward-curved centrifugal type and dynamically balanced. All fans shall bear the AMCA Certified Ratings program AMCA Sound and Air Performance seal and shall be UL/cUL Listed. Ceiling fans shall be model SP as manufactured by Greenheck Fan Corporation, Schofield, Wisconsin.

Model SP-A fans with 50 hertz motors are not AMCA certified.

## Models SP-B50, B70, B80, B90, B110, B150, and B200

Ceiling-mounted exhaust fans shall be of the centrifugal direct drive type. The fan housing shall be constructed of galvanized steel. The polypropylene duct collar shall be 6 inches (152 mm) in diameter and shall include a backdraft damper. The grille shall be constructed of non-yellowing high-impact polystyrene and attached to the housing with hidden attachment screws. The access for wiring shall be internal. The motor disconnect shall be internal and of the plug-in type.

The motor shall be mounted on vibration isolators. The fan wheel shall be of the forward-curved centrifugal type, constructed of calcium carbonate filled polypropylene and dynamically balanced. All fans shall bear the AMCA Certified Ratings program AMCA Sound and Air Performance Seal and shall be UL/cUL Listed. Ceiling fans shall be model SP-B50, B70, B80, B90, B110, B150, or B200 as manufactured by Greenheck Fan Corporation, Schofield, Wisconsin.

Model SP-B fans with 50 hertz motors are not AMCA certified.



## Models CSP-A110 thru A3300

Duct-mounted exhaust, supply or return air fans shall be of the centrifugal direct drive type. The fan housing shall be constructed of heavy-gauge galvanized steel. The housing interior shall be lined with 0.5 inch (13 mm) acoustical insulation. The outlet duct collar shall include an aluminum backdraft damper and shall be adaptable for horizontal or vertical discharge. The access for wiring shall be external. The motor disconnect shall be internal and of the plug-in type.

The motor shall be mounted on vibration isolators. The fan wheel shall be of the forward-curved centrifugal type and dynamically balanced. All fans shall bear the AMCA Certified Ratings program AMCA Air Performance Seal and shall be UL/cUL Listed. Ceiling fans shall be model CSP as manufactured by Greenheck Fan Corporation, Schofield, Wisconsin.

Model CSP-A fans with 50 hertz motors are not AMCA certified.

# Design and Selection Support

Enjoy Greenheck's extraordinary service, before, during and after the sale.

Greenheck offers added value to our wide selection of top performing, energy-efficient products by providing several unique service programs.



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- Greenheck's free Computer Aided Product Selection program CAPS®, rated by many as the best in the industry, helps you conveniently and efficiently select the right products for the challenge at hand.
- Our 3D service allows you to download, at no charge, easy-to-use AutoDesk® Revit® 3D drawings for many of our ventilation products.

Find out more about these special services at [greenheck.com](http://greenheck.com)



## Building Value in Air

Greenheck delivers value to mechanical engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of

top quality, innovative air-related equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time.

And building owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

## Our Commitment

*As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.*

Product warranties can be found online at [Greenheck.com](http://Greenheck.com), either on the specific product page or in the literature section of the website at [Greenheck.com/Resources/Library/Literature](http://Greenheck.com/Resources/Library/Literature).

