

# Centrifugal Ceiling and Cabinet Exhaust Fans Models SP and CSP



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BUILDING VALUE IN AIR.

June  
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# Models SP and CSP

## Ceiling and Cabinet Exhaust Fans



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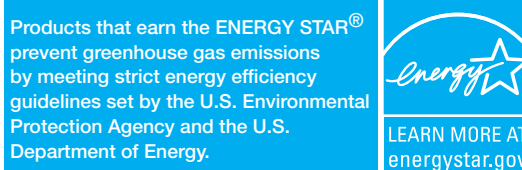
Greenheck Fan Corporation certifies that the SP models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.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



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.



Fans that are ENERGY STAR qualified include:  
SP-A-50, 70, 90, 200, 250, 290 and 410  
SP-B-50, 70, 80 and 90



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# Models SP and CSP

## Ceiling and Cabinet Exhaust Fans

### Model Comparison

Model	Location		Mounting				Airflow				Application						Drive Type	Impeller Type		Performance		Relative Cost				
	Outdoor	Indoor	Roof Curb	Base/Floor	Hanging	Wall	Ceiling Mounted	Exhaust	Supply	Reversible	Recirculate	General/Clean Air	Contaminated Air	Spark Resistant	Grease (UL 762)	Smoke Control (UL)	High Wind (150 mph)	High Temp (above 200°F)	Belt	Direct	Centrifugal		Propeller/Axial	Mixed Flow	Maximum Volume (cfm)	Maximum Static Pressure (in. wg)
SP		✓					✓	✓				✓								✓	✓			1,600	1	\$
CSP		✓			✓			✓	✓			✓								✓	✓			3,800	1	\$

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



SP fans are designed for ceiling mounted applications.

### Benefits

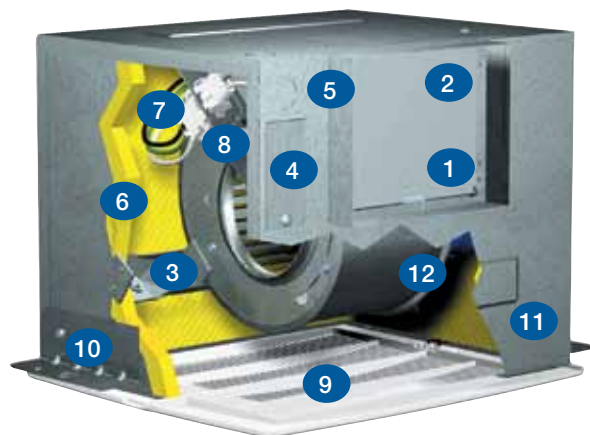
- Lowest sound in the industry
- Compact size
- Five different fan styles offering you a competitive price
- Broadest performance selections in the industry



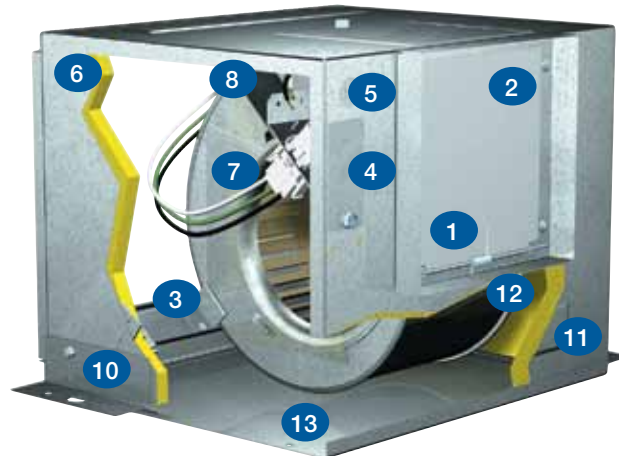
CSP fans are designed for inline mounted applications.

Model	Description	Profile min. height	Sound min. sones	Air Volume (maximum)	UL Listing
Ceiling Fans	SP-A Premium Ceiling Fan: Best choice to meet sound requirements.	9 inches (229 mm)	0.5	1,600 cfm (2718 m³/hr)	UL/cUL Listed for above bathtub/shower with GFCI branch protected circuit (Sizes A390 and smaller)
	SP-B Deluxe Ceiling Fan: Compact to fit most applications with quiet operation.	7 inches (178 mm)	1.2	200 cfm (340 m³/hr)	UL/cUL Listed for above bathtub/shower with GFCI branch protected circuit
	SP-C Economy Ceiling Fan: Designed for light commercial applications.	3½ inches (86 mm)	3.0	50 cfm (85 m³/hr)	UL Listed
Inline Fans	CSP-A Premium Inline Fan: Outperforms the competition and is preferred by specifying engineers.	9 inches (229 mm)	0.8	3,775 cfm (6414 m³/hr)	UL/cUL Listed
	CSP-B Deluxe Inline Fan: Compact design to fit in small remote spaces.	7 inches (178 mm)	1.5	185 cfm (314 m³/hr)	UL/cUL Listed

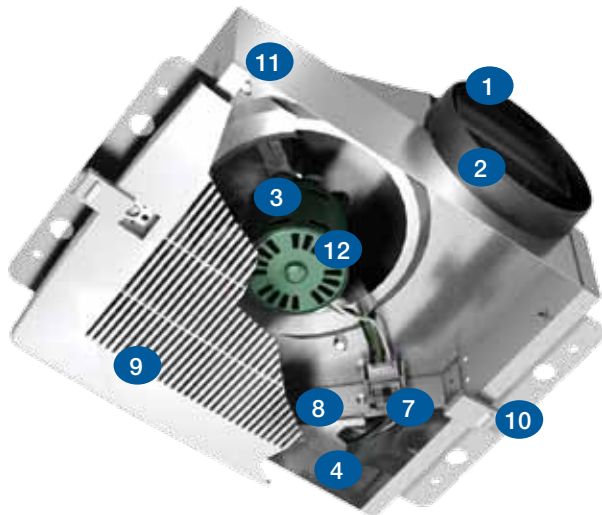
**Model SP-A**



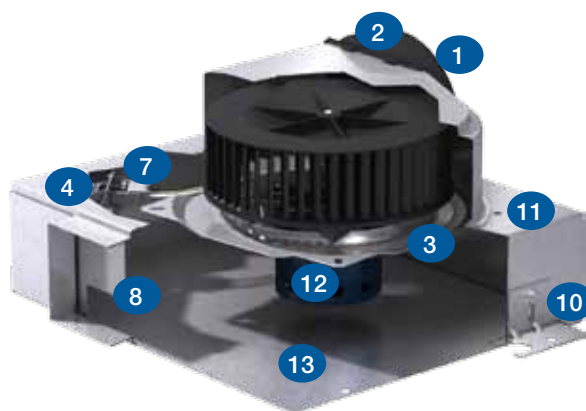
**Model CSP-A**



**Model SP-B**





**Model CSP-B**



**Model SP-C**





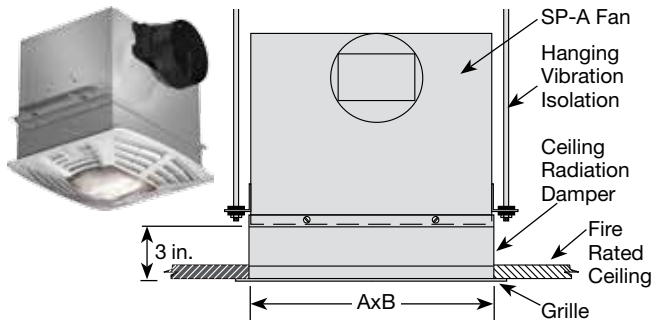
Number and Description			Specific Features for Each Model				
			SP-A	SP-B	SP-C	CSP-A	CSP-B
1	Backdraft Damper	Durable plastic or aluminum to eliminate rattling and backdrafts	✓	✓	✓	✓	✓
2	Outlet	Round - For quick and easy connections	50-90	50-200	50		50-200
		Square - For quick and easy connections	110-1550			110-3600	
3	Power Assembly	Removes quickly for maintenance	✓	✓	✓	✓	✓
		Includes conversion from horizontal to vertical discharge	✓			✓	
4	Electrical Access	Vertical electrical access to eliminate drilling holes	✓	✓		✓	✓
		External electrical access to eliminate removing motor pack, saving 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 • 60 cycle, 115v, 208v, 220v, 230v, & 277v options (See CAPS for availability)	✓	✓	60 cycle, 115v only	✓	✓
13	Access Panel	Gain easy access to internal components once installed	✓	✓	✓	✓	✓
	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 models SP-A and CSP-A.					

## Ceiling Radiation Damper

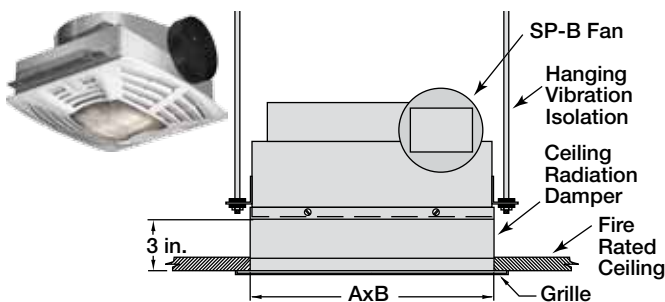
The National Fire Protection Association (NFPA) Standard 90A requires openings in fire rated ceiling assemblies to be protected by appropriately rated ceiling radiation dampers. As a result, many local codes require fans installed in fire rated ceilings to be protected by dampers which are insulated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

UL Classified ceiling radiation dampers are rated at three to four hours of fire resistance. All model SP fans and fan/light combinations are available with ceiling radiation dampers. This design saves space by allowing the damper to mount directly beneath the fan.

### Model SP-A



### Model SP-B



SP Model	CRD	Length (A)	Width (B)	Height
A50 - A190	310	13½ (343)	11⅞ (283)	3 (76)
B50 - B200 A200 - A390	320	14¾ (365)	12¼ (311)	3 (76)
A410 - A510 A710 - A780	350	18⅞ (468)	14⅞ (379)	3 (76)
A700	700	24¾ (614)	12¼ (311)	3 (76)
A900 - A1550	360	24¾ (614)	14⅞ (379)	3 (76)

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)

## 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 only).



## 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 all models offer an aluminum wheel option.

- Level A models utilize steel or polypropylene wheel construction depending on size.
- Level B models are standard with a polypropylene wheel.

### Polypropylene



### Steel



### Aluminum

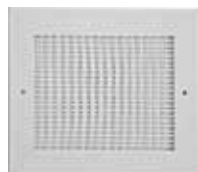


## Grille Options



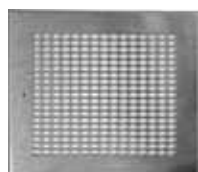
### Designer - standard grille

Available in white polystyrene finish, with or without motion detector or time delay (see page 9 for motion detector and time delay information). Standard on SP models A50-A390 and B50-B200.



### Aluminum - grille option

White enamel finish. Available for models A50-A390 and B50-B200. For models A410-A1550, only the aluminum grille is available.



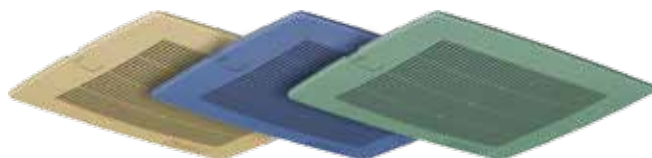
### Stainless Steel - grille option

Polished stainless steel finish. Available for models A50-A1550 and B50-B200.



### Decorative - grille option

White plastic finish, with or without light, motion detector or time delay (see page 9 for motion detector and time delay information). Available for models A50-A390 and B50-B200.



### Customized grille options

Molded polystyrene available in an array of colors. Includes all the same accessory options as the standard grilles. For more information on the many ways this grille option can be used please contact your Greenheck representative.

### Customized Grille Lens

Lenses can be customized with formed shapes or logos. Contact your Greenheck representative for details.



## Lighted Grille Options

Greenheck's fan and light combinations include either a prismatic or a frosted lens and either compact fluorescent or incandescent lamps. Our unique light box is manufactured with a reflective material to increase the light given off by either type of lamp. *UL Listed for above bathtub and showers with GFCI branch protected circuit.*

Model SP-A, sizes 50 - 390

Model SP-B, sizes 50 - 200



### Prismatic Lens

The prismatic lens design provides approximately 25% more light than a traditional frosted lens. The lens may be easily removed to replace light bulbs.



### Frosted Lens

The frosted lens option is a traditional design which lets approximately 80% of light through the lens. The lens may be easily removed to replace light bulbs.



### Incandescent Lamps

One bulb provides up to 100 watts of light (bulbs provided by others).

- Dimmable
- Reflective light box

## Compact Fluorescent Lamps (CFL)

### Features and Benefits

- GU24 Base
- Long Life, 10,000 hour average rated life
- Lower maintenance and labor costs for lamp replacements
- No lead glass - Better lumen maintenance over life of bulb
- End-of-Life logic guards against violent failures
- Complies with UL 1993 End-of-Life requirements
- World Class phosphor insures high lumen output and excellent lumen maintenance
- Replacement bulbs can be found wherever standard light bulbs and fixtures are sold. Energy efficient ENERGY STAR® qualified fixtures.
- California Energy Title 24 compliant



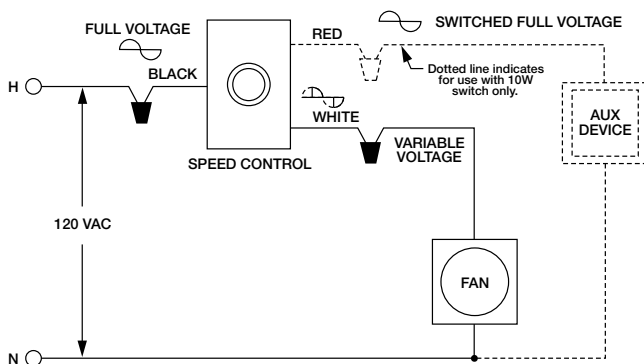
## Speed Controls

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 with 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 be used to operate more than one fan if the combined total amperage of the fans do not exceed the control rating.



Internal Mounting



For use with shaded pole and permanent split capacitor (PSC) motors. Available shipped loose or mounted internal or external.

## Switches

Switches may be used on model SP and CSP fans to enable manual control of your fan or fan and light combination. There are several options to fit your application.



**NEMA 1** - Single pole rocker switch assembly.

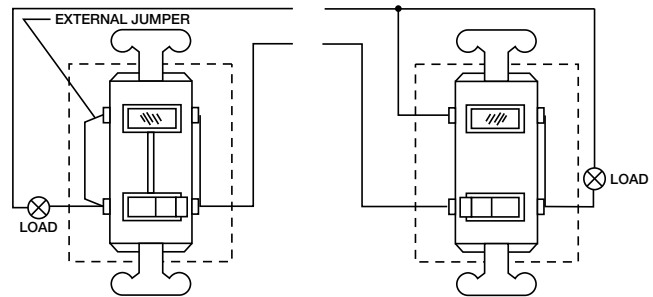
- Rated for, 115v, 15 Amp, 1/2 hp
- UL Listed

**Model MS-16** - Single pole rocker switch assembly with cover and pilot light.

- Rated for, 115v, 15 Amp, 1/2 hp
- UL Listed

**NEMA 1** - Two pole rocker switch assembly.

- Rated for, 220/230/240/277v, 20 Amp, 2 hp
- UL Listed
- Requires a 2x4 handy box.



SPEED CONTROL INTERNAL AND/OR EXTERNAL MOUNTING OPTIONS

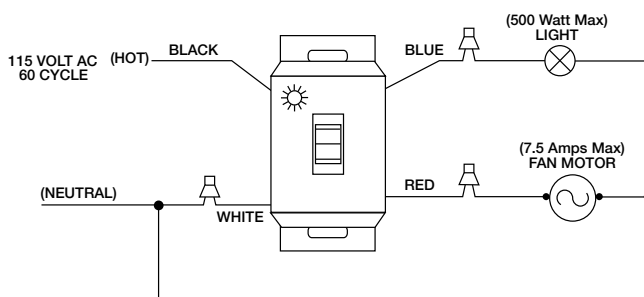
Model Voltage Rating Amp Rating	Fan Sizes																							
	50	70	80	90	110	125	150	190	200	250	290	390	410	510	700	710	780	900	1050	1410	1550	1750	2150	3600
<b>5WSSC</b> 115 - 127v 5 Amp	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	I/E	No	No	No	No	No	No
<b>10WSSC</b> 115 - 127v 10 Amp	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	No
<b>15WSSC</b> 115 - 127v 15 Amp	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	No
<b>5W240</b> 220 - 240v 5 Amp	No	No	No	*I/E	I/E	No	I/E	I/E	*I/E	No	I/E	I/E	No	I/E	No	No	I/E	No	I/E	No	I/E	No	No	No
<b>8WSSC</b> 220 - 240v 8 Amp	No	No	No	*E	E	No	E	E	*E	No	E	E	No	E	No	No	E	No	E	No	E	No	No	No
<b>5W277</b> 227v 5 Amp	No	No	No	No	I/E	I/E	I/E	I/E	*I/E	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
<b>KEY:</b>	E = External mounted only												I/E = Available Internal and External Mounted											
	* Only available on the B-series (A-series is not available)												No = Not available											

NOTES: Speed controllers are not available for 208v applications. SP-C50 Speed Controller is shipped loose only. All speed controller options listed in table are UL Listed. Handy Box sizes are 2x4 for all options above except 10WSSC and 15WSSC, which are 4x4.



## Time Delay Switch

Time delay switches save energy by automatically turning off equipment. They may be used with SP and CSP fans or fan and light combinations for extended operating time of fan. Time delay switches act in the same manner as a standard switch, however, there is a delay of 1 to 60 minutes after it has been turned off.



### Model GTD -

A single switch controls both fan and light. Available shipped loose.

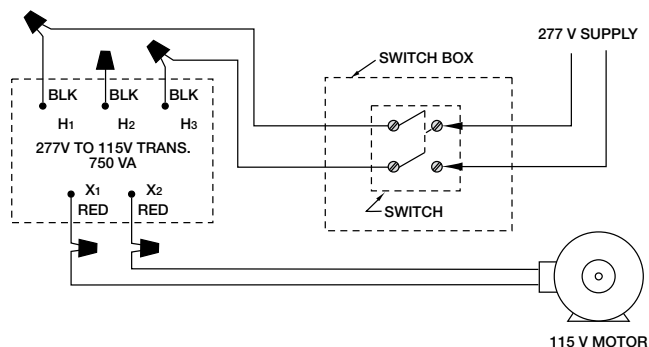
- Silent Operation
- Rated for 115v
- UL Listed
- Requires 2x4 handy box



## Transformers

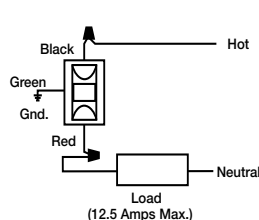
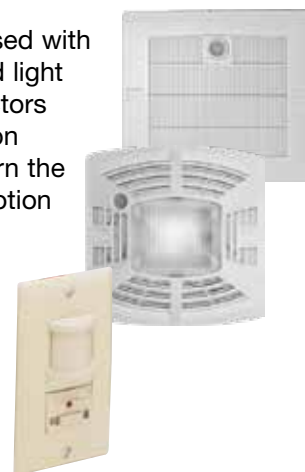
Transformers are available for applications requiring voltage reduction. Selection is based on motor amperage. All transformers are shipped loose.

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

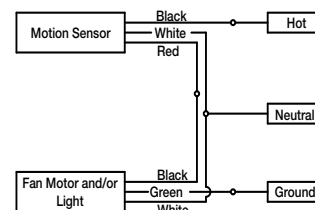


## Motion Detectors

Motion detectors may be used with SP and CSP fans or fan and light combinations. Motion detectors use a passive infrared motion detector to automatically turn the fan on when a change in motion is sensed. They have a viewing area of 180 degrees, however they must be placed in the line-of-sight. They also have an adjustable time delay shutoff setting of 1 to 20 minutes.



**Wall Mount**



**Grille Mount**

**Grille Motion Detectors** are available on models up through size SP-A390 and SP-B200.

- Rated for 115v
- UL Listed

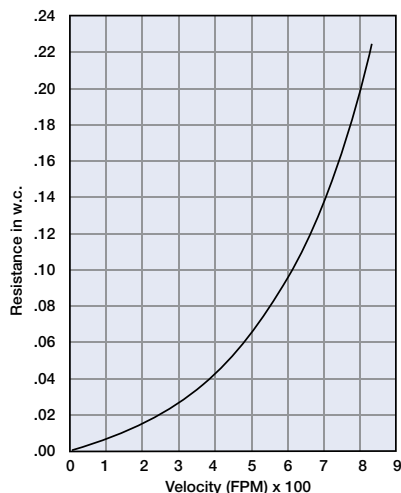
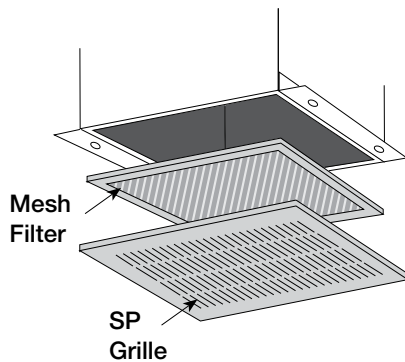
### Model MDW

For use on fan or lights. Available shipped loose.

- Rated for 115v
- UL Listed
- Requires 2x4 handy box

## 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 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 FPM. 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.

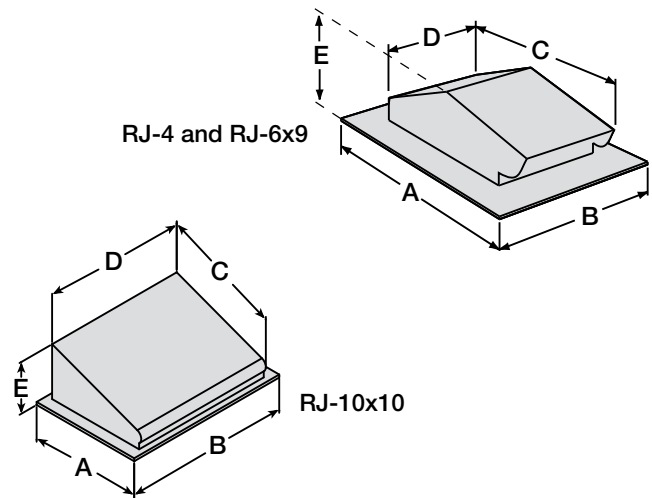


Filter Loss Chart			
SP Model	Filter Model		Filter Area (ft <sup>2</sup> )
	Designer Grille	*Metal Grille	
SP-A50 - A190	F-200	F-210	0.739
SP-B50 - B200, A200 - A390	F-200	F-220	0.911
SP-A410 - A510 SP-A710 - A780	NA	F-250	1.518
SP-A900 - A155	NA	F-260	2.078
*Aluminium or Stainless Steel Grille.			

## Roof Discharge Accessories

### Model RJ - Pitched Roof Cap

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

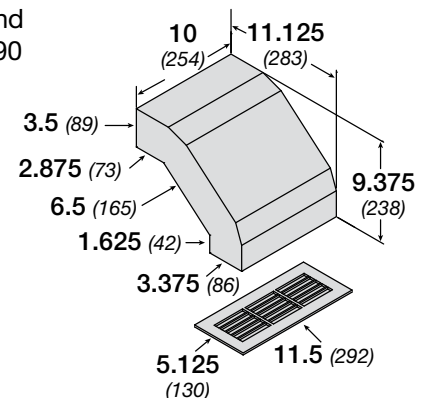


Model	Use for sizes:	A	B	C	D	E	Throat
RJ-4	C50, B50-B80	11 (279)	9 1/4 (235)	8 1/4 (210)	5 5/16 (135)	4 1/2 (114)	4 (102) diameter
RJ-6x9	B90-B200, A50-A390	18 3/4 (476)	14 1/4 (362)	14 1/2 (368)	10 3/8 (264)	6 1/2 (165)	6 x 9 (152 x 229)
RJ-10x10	A410-A1050	18 1/2 (470)	27 1/2 (699)	15 3/4 (400)	23 3/8 (600)	9 1/2 (241)	10 x 10 (254 x 254)

All dimensions shown in inches (millimeters).

### Model EL-10x3 - Elbow Discharge with Grille

- Designed for installation under roof eaves
- Black epoxy finish
- Built-in damper
- For model SP and CSP sizes 50-290

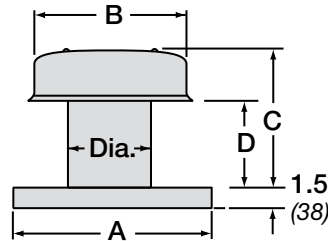


All dimensions shown in inches (millimeters).

# Flat Roof Caps

## Model RCC-7 - Curb Cap

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

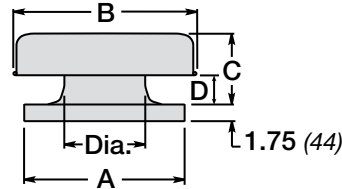


Model	For all sizes:	A	B	C	D	Throat Dia.
RCC-7	50-390	15 (381)	12 (305)	10 (254)	6 <sup>3</sup> / <sub>8</sub> (162)	7 (178)

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

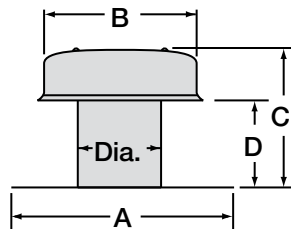


Model	For all sizes:	A	B	C	D	Throat Dia.
GRS-10	410-710	19 (483)	20 <sup>1</sup> / <sub>2</sub> (521)	7 <sup>3</sup> / <sub>4</sub> (197)	2 (51)	10 <sup>1</sup> / <sub>4</sub> (260)
GRS-12	780-1050	22 (559)	29 (737)	10 (254)	3 <sup>1</sup> / <sub>2</sub> (89)	12 <sup>1</sup> / <sub>4</sub> (311)
GRS-16	1410-2150	26 (660)	29 (737)	11 (279)	4 <sup>1</sup> / <sub>4</sub> (108)	16 <sup>5</sup> / <sub>16</sub> (414)
GRS-20	3600	30 (762)	35 <sup>1</sup> / <sub>2</sub> (902)	11 <sup>1</sup> / <sub>4</sub> (286)	3 <sup>3</sup> / <sub>4</sub> (95)	20 <sup>5</sup> / <sub>16</sub> (516)

All dimensions shown in inches (millimeters).

## Model RFC-7 - Flashing Flange

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

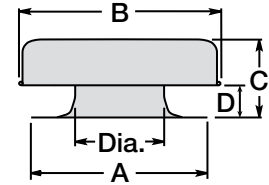


Model	For all sizes:	A	B	C	D	Throat Dia.
RFC-7	50-390	18 (457)	12 (305)	10 (254)	6 <sup>3</sup> / <sub>8</sub> (162)	7 (178)

All dimensions shown in inches (millimeters).

## Model GRSF - Flashing Flange

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

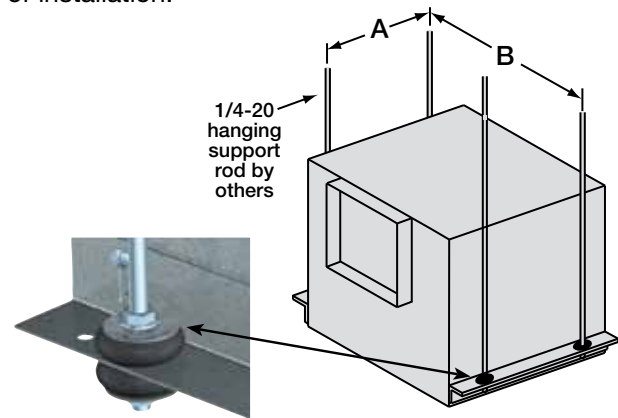


Model	For all sizes:	A	B	C	D	Throat Dia.
GRSF-10	410-710	23 (584)	20 <sup>1</sup> / <sub>2</sub> (521)	7 <sup>3</sup> / <sub>4</sub> (197)	2 (51)	10 <sup>1</sup> / <sub>4</sub> (260)
GRSF-12	780-1050	26 (660)	29 (737)	10 (254)	3 <sup>1</sup> / <sub>2</sub> (89)	12 <sup>1</sup> / <sub>4</sub> (311)
GRSF-16	1410-2150	30 (762)	29 (737)	11 (279)	4 <sup>1</sup> / <sub>4</sub> (108)	16 <sup>5</sup> / <sub>16</sub> (414)
GRSF-20	3600	34 (864)	35 <sup>1</sup> / <sub>2</sub> (902)	11 <sup>1</sup> / <sub>4</sub> (286)	3 <sup>3</sup> / <sub>4</sub> (95)	20 <sup>5</sup> / <sub>16</sub> (516)

All dimensions shown in inches (millimeters).

## Hanging Vibration Isolators

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

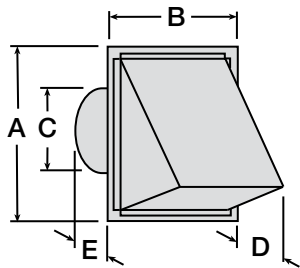


Unit Size	A	B
B50-B200	4 <sup>1</sup> / <sub>2</sub> (114)	15 <sup>5</sup> / <sub>8</sub> (397)
A50-A190	5 <sup>1</sup> / <sub>2</sub> (140)	14 <sup>5</sup> / <sub>8</sub> (371)
A200-A390	6 <sup>3</sup> / <sub>4</sub> (171)	15 <sup>1</sup> / <sub>2</sub> (394)
A410, A510, A710, A780	9 <sup>1</sup> / <sub>4</sub> (235)	19 <sup>5</sup> / <sub>8</sub> (498)
A700	5 <sup>1</sup> / <sub>2</sub> (140)	25 <sup>1</sup> / <sub>8</sub> (638)
A900-A1050, A1410-A1550	9 <sup>1</sup> / <sub>4</sub> (235)	25 <sup>3</sup> / <sub>8</sub> (645)
A1750, A2150	9 <sup>1</sup> / <sub>4</sub> (235)	36 <sup>3</sup> / <sub>4</sub> (933)
A3600	9 <sup>1</sup> / <sub>4</sub> (235)	48 <sup>5</sup> / <sub>8</sub> (1235)

All dimensions shown in inches (millimeters).

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

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

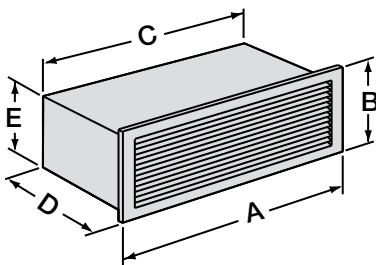


Model	Use with sizes:	A	B	C	D	E
WC-4	C50	6½ (165)	6 (152)	4 (102)	2¾ (70)	5 (127)
WC-6	B50-B200, A50-A190	8 (203)	8 (203)	6 (152)	4⅛ (105)	5 (127)
WC-8	A200-A510	11 (279)	11 (279)	8 (203)	5⅞ (130)	3½ (89)

All dimensions shown in inches (millimeters).

## Model WL - Wall Louvred 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.

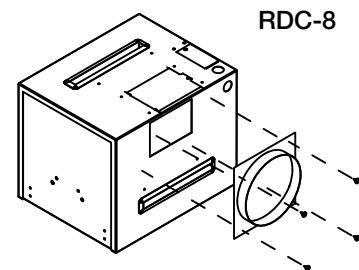


Model	Use with all sizes:	A	B	C	D	E
WL-10x3	50-290	12 (305)	5¼ (133)	10 (254)	7¾ (197)	3½ (89)
WL-18x6	390-1550	19¾ (502)	8 (203)	18 (457)	9 (229)	6 (152)

All dimensions shown in inches (millimeters).

## 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)

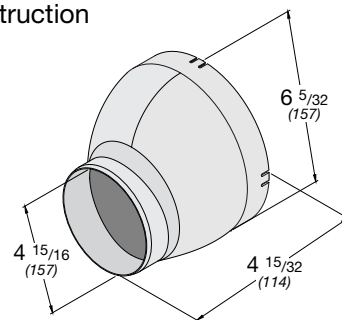


Model	Use with sizes:	Diameter
RDC-6	A110-A190	6 (152)
RDC-8	A200-A510	8 (203)

All dimensions shown in inches (millimeters).

## 6x4 - Transition Duct Reducer

- Reduces duct from 6 to 4 inches.
- Durable plastic construction



Model	For use with sizes:
473324	B50-B200
	A50-A90
	A110-A190*

All dimensions shown in inches (millimeters).

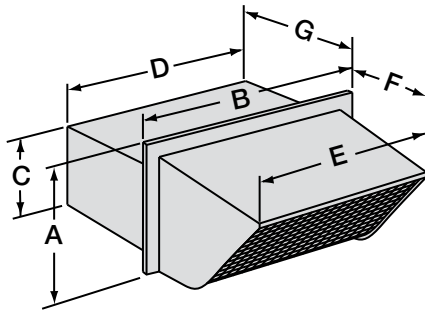
\* Used in conjunction with RDC-6



# Wall Discharge Accessories

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

- Steel construction with black enamel finish
- For outside wall applications
- Built-in birdscreen and damper

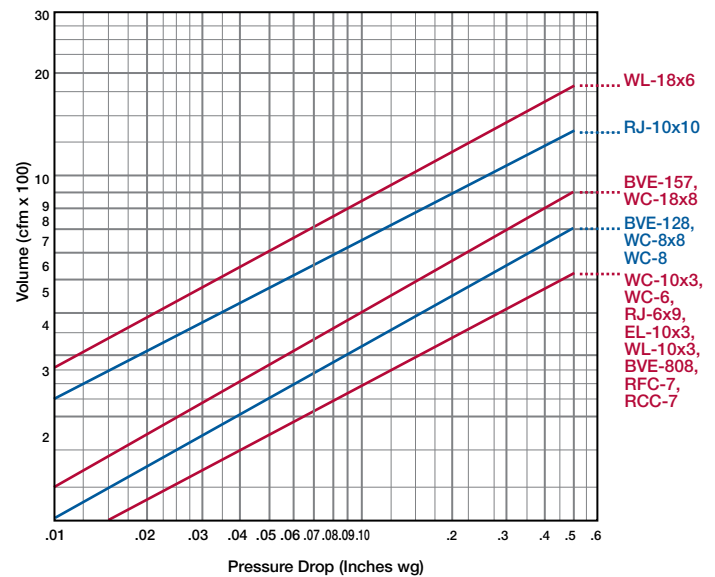


Model	Use with all sizes:	A	B	C	D	E	F	G
WC-10x3	50-290	5½ (140)	12¾ (324)	3½ (89)	10¼ (260)	11½ (283)	4¼ (108)	5 (127)
WC-8x8	200-510	10¼ (260)	10¼ (260)	8¼ (210)	8¼ (210)	8¼ (210)	6¾ (171)	5 (127)
WC-18x8	700-1550	10¼ (260)	20¼ (514)	8¼ (210)	18¼ (464)	18¼ (464)	6¾ (171)	5 (127)

All dimensions shown in inches (millimeters).

## Accessory Pressure Drops

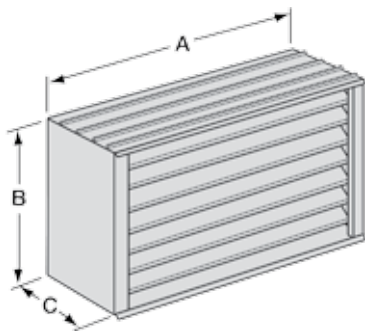
The chart below can be used with all of the discharge accessories shown on these two pages. Specific pressure drop values for these accessories must be included in total system calculations for proper fan selection.



Above accessories tested with 4 feet of inlet duct

## Model BVE - Brick Vent

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



Model	Use with all sizes:	A	B	C
BVE808	50-290	8⅞ (206)	7¾ (197)	4 (102)
BVE128	390-510	12 (305)	7¾ (197)	4 (102)
BVE157	700-1050	15⅝ (397)	7¾ (197)	4 (102)

All dimensions shown in inches (millimeters).

# Things to know when sound is critical

## Sound Data

The sound data shown in this catalog has been presented to aid the system designer in selecting a fan which will meet the desired sound criteria. Sone 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, which indicates 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 the sound levels?

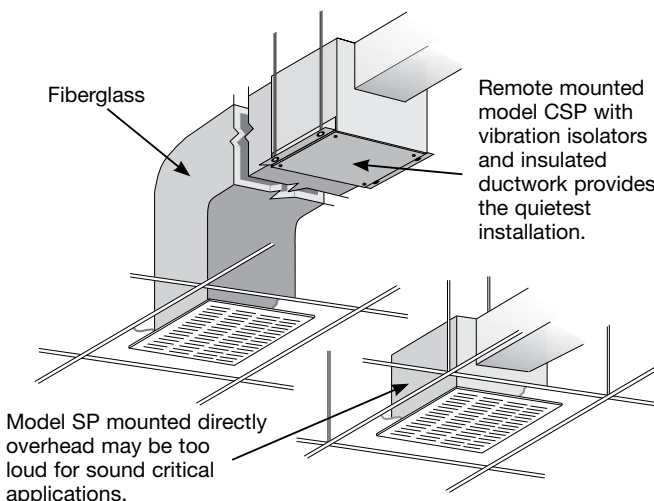
Radiated noise from fan housings can cause unacceptable sound levels, on any brand of fan. The size of these fans allows them to be placed in areas where this noise will be transmitted to the conditioned space through walls or ceilings. Where possible, cabinet fans should be located in remote parts of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

## When should a 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 ductboard 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 the SP and CSP fans provides the system designer greater flexibility in locating these fans for lowest sound levels. In critical sound areas, insulated ductwork, flexible duct connections, or placing the fan in a remote section of the ductwork (away from the critical area) offers the best means of meeting desired sound levels.



**Suggested Limits for Room Loudness**

Sones	DBA	
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

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 the 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.

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.

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

\*Sone value with insulated inlet duct.

## What is ENERGY STAR®?

ENERGY STAR® is the trusted, government-backed symbol for energy efficiency helping us all save money and protect the environment through energy-efficient products and practices.

### The ENERGY STAR® label was established to:

- Reduce greenhouse gas emissions and other pollutants caused by the inefficient use of energy; and
- Make it easy for consumers to identify and purchase energy-efficient products that offer savings on energy bills without sacrificing performance, features, and comfort.

For a ventilation fan to achieve ENERGY STAR® approval it must meet strict efficiency standards for both sound and performance.

By using Greenheck model SP ENERGY STAR® qualified fans you are helping to provide an energy efficient alternative that helps save money and resources.

See pages 16 and 17 for ENERGY STAR® qualified models.

More information on the certification process and a complete list of qualified products can be found on the ENERGY STAR® website ([www.energystar.gov](http://www.energystar.gov)).

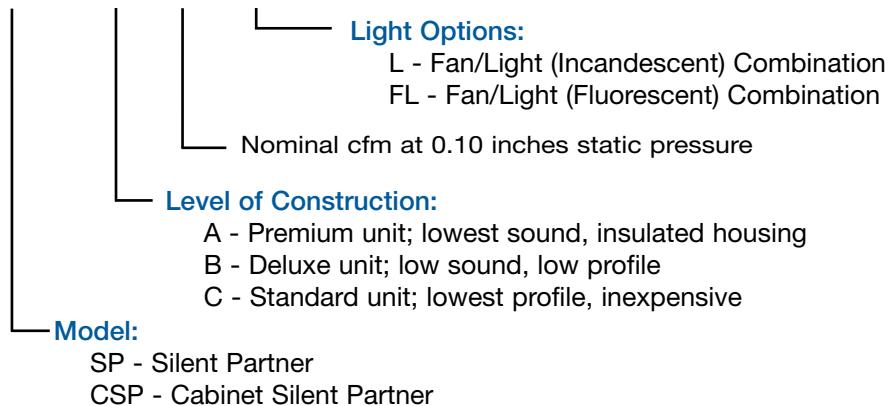
Products that earn the ENERGY STAR® prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.



## Model Number Code

The model number code system is designed to completely identify the fan. The correct code letters must be specified to designate belt or direct drive. The remainder of the model code is determined by the size and performance.

### SP - A 50 FL



# Model SP-A

## Premium Ceiling Fan

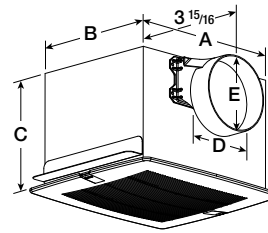


### Model SP-A Dimensions

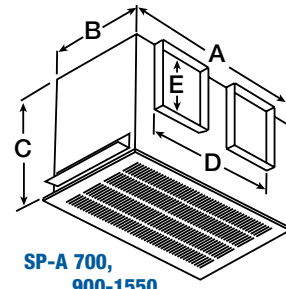
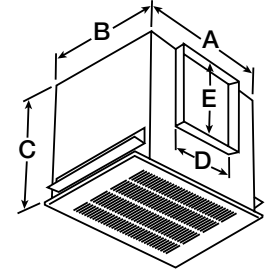
Model	A	B	C	D	E	Designer Grille*	Decorative Grille	Unit Weight
50, 70, 90	13 <sup>1</sup> / <sub>4</sub> (337)	10 <sup>5</sup> / <sub>8</sub> (270)	9 (229)	6 (152)				12 (5)
110, 125, 190	13 <sup>1</sup> / <sub>4</sub> (337)	10 <sup>5</sup> / <sub>8</sub> (270)	9 (229)	8 (203)	6 (152)	14 <sup>7</sup> / <sub>8</sub> x 13 <sup>1</sup> / <sub>4</sub> (378 x 337)	15 <sup>1</sup> / <sub>4</sub> (387) sq.	17 (8)
200, 250, 290, 390	14 (356)	11 <sup>7</sup> / <sub>8</sub> (302)	11 <sup>1</sup> / <sub>4</sub> (286)	8 (203)	8 (203)			24 (11)
410, 510	18 (457)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	8 (203)	8 (203)	19 <sup>3</sup> / <sub>8</sub> x 16 <sup>3</sup> / <sub>8</sub> (492 x 416)		31 (14)
700	23 <sup>3</sup> / <sub>8</sub> (600)	11 <sup>5</sup> / <sub>8</sub> (295)	11 <sup>5</sup> / <sub>8</sub> (295)	19 <sup>1</sup> / <sub>2</sub> (495)	8 (203)	25 <sup>1</sup> / <sub>2</sub> x 13 <sup>1</sup> / <sub>2</sub> (638 x 343)		34 (15)
710, 780	18 (457)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	10 (254)	8 (203)	19 <sup>3</sup> / <sub>8</sub> x 16 <sup>3</sup> / <sub>8</sub> (492 x 416)		34 (15)
900, 1050, 1410, 1550	23 <sup>3</sup> / <sub>4</sub> (603)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	18 <sup>3</sup> / <sub>4</sub> (476)	8 (203)	25 x 16 <sup>3</sup> / <sub>8</sub> (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 1 1/2 in. (38 mm).  
 For complete dimensional information, see CAPS submittal drawings.  
 \* Sizes 410 and larger have an aluminum grille as standard.

SP-A 50-90



SP-A 110-510, 710, 780



SP-A 700, 900-1550



\*Note: Amp draw is approximate and may vary based on motor manufacturer.

Model	Energy Star	RPM	Amps*	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
SP-A50 <sub>2, 3, 5</sub>	☆	700	0.31	18.3	CFM	76	51	48	31						
					Sones	0.5	0.7	0.8	1.3						
SP-A70 <sub>2, 3, 5</sub>	☆	850	0.27	20.2	CFM	83	70	67	42						
					Sones	0.8	0.8	0.8	1.6						
SP-A90 <sub>2, 3, 5</sub>	☆	900	0.34	29.4	CFM	99	88	84	61	25					
					Sones	0.8	1.0	0.9	1.2	1.4					
SP-A110 <sub>2, 3, 4, 5, 6</sub>		950	0.58	48.7	CFM	119	110	106	88						
					Sones	0.8	0.8	1.0	1.1						
SP-A125 <sub>2, 3, 5, 6</sub>		1100	0.62	52.5	CFM	135	123	121	104						
					Sones	0.9	1.2	1.3	1.3						
SP-A190 <sub>2, 3, 4, 5, 6</sub>		1400	1.30	113	CFM	216	197	192	167	133					
					Sones	2.5	2.5	2.5	2.5	2.5					
SP-A200 <sub>2, 3, 5</sub>	☆	900	0.43	48.2	CFM	247	225	220	196	172	142	105	67		
					Sones	1.4	2.0	2.0	2.5	3.0	3.5	3.5	4.0		
SP-A250 <sub>2, 3, 5</sub>	☆	1000	0.77	83.1	CFM	272	251	246	227	210	185	157	119		
					Sones	2.5	2.5	2.5	2.5	3.5	4.0	4.0	4.0		
SP-A290 <sub>2, 3, 4, 5</sub>	☆	1050	0.72	80.7	CFM	315	293	287	257	231	207	175	124		
					Sones	2.5	2.5	2.5	3.0	3.0	3.5	3.5	4.5		
SP-A390 <sub>2, 3, 4, 5</sub>		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		
SP-A410 <sub>3</sub>	☆	1000	1.74	121	CFM	443	413	405	351	306					
					Sones	3.5	3.0	3.0	3.0	3.5					
SP-A510 <sub>3, 4</sub>		1070	3.30	224	CFM	557	512	501	439	392	325				
					Sones	5.0	4.5	4.5	4.5	4.5	4.0				
SP-A700 <sub>3</sub>		1100	3.20	350	CFM	757	730	723	700	679	649	613	560	494	396
					Sones	5.0	5.0	5.0	5.5	5.5	6.0	6.0	6.5	6.5	6.5
SP-A710 <sub>3</sub>		1080	4.40	285	CFM	752	714	701	653	588	486	320			
					Sones	6.0	6.0	6.0	6.0	6.0	5.5	5.5			
SP-A780 <sub>3, 4</sub>		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 <sub>3</sub>		950	4.00	285	CFM	955	907	896	841	773	701				
					Sones	4.0	5.0	5.0	5.0	5.0	5.0				
SP-A1050 <sub>3, 4</sub>		1095	6.30	420	CFM	1125	1059	1043	964	885	796	662			
					Sones	6.0	6.0	6.0	6.0	5.5	5.5	5.5			
SP-A1410 <sub>3</sub>		1450	7.40	786	CFM	1455	1415	1404	1353	1307	1262	1218	1174		
					Sones	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		
SP-A1550 <sub>3, 4</sub>		1610	8.60	818	CFM	1607	1558	1558	1506	1449	1407	1369	1323		
					Sones	10.5	10.0	10.0	10.0	10.0	10.5	11.5	13.0		

- 2 Available with light
- 3 Available with CRD - Ceiling Radiation Damper
- 4 Also available with 50 Hz motors (See page 20 for performance)

- 5 UL Listed for use above tubs.
- 6 Available with 277 volt motor.

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 (1.5m) 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.



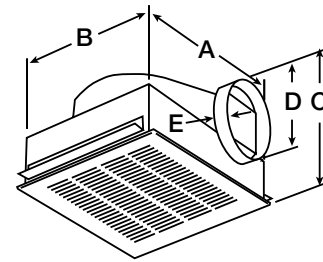
# Model SP-B and SP-C

## Deluxe and Standard Ceiling Fan

### Model SP-B Dimensions

Model	A	B	C*	D	E	Designer Grille	Decorative Grille	Unit Weight
50, 70 & 80	13 $\frac{7}{8}$ (352)	11 $\frac{1}{2}$ (292)	7 (179)	6 (152)	1 $\frac{1}{4}$ (32)	14 $\frac{7}{8}$ x 13 $\frac{1}{4}$ (378 x 337)	15 $\frac{1}{4}$ (387) sq.	9 (4)
90, 110, 150, 200	13 $\frac{7}{8}$ (352)	11 $\frac{1}{2}$ (292)	7 (179)	6 (152)	1 $\frac{1}{4}$ (32)			10 (5)

All dimensions are in inches (millimeters) and weight in pounds (kilograms). \*Add 1 $\frac{1}{2}$  in. (38 mm) to C dimension for incandescent light. Mounting bracket width is 1 $\frac{1}{2}$  in. (38 mm). For complete dimensional information, see CAPS submittal drawings.



\*Note: Amp draw is approximate and may vary based on motor manufacturer.

Model	Energy Star	RPM	Amps*	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
SP-B50 <sub>2, 3, 5</sub>	☆	625	0.50	37.8	CFM	67	54	51	40	29				
					Sones	1.2	1.4	1.4	2.0	3.0				
SP-B70 <sub>2, 3, 5</sub>	☆	675	0.53	45.1	CFM	77	71	68	57	49	39			
					Sones	1.2	1.4	1.4	2.0	2.5	3.0			
SP-B80 <sub>2, 3, 5</sub>	☆	900	0.60	54.3	CFM	87	80	78	68	61	54	44	30	
					Sones	2.0	2.0	2.5	2.5	3.0	3.5	4.5	4.5	
SP-B90 <sub>2, 3, 4, 5</sub>	☆	700	0.65	49.7	CFM	101	89	88	75	59	45	30		
					Sones	1.5	2.0	2.0	2.5	3.0	3.5	4.0		
SP-B110 <sub>2, 3, 4, 5, 6</sub>		950	1.14	80.2	CFM	133	114	110	97	95	94	91	85	72
					Sones	1.5	1.5	1.5	2.0	2.0	2.0	3.0	3.5	4.0
SP-B150 <sub>2, 3, 4, 5, 6</sub>		1050	1.70	128	CFM	160	156	155	154	152	149	147	138	123
					Sones	2.5	2.5	2.5	3.0	3.5	3.5	4.0	4.5	4.5
SP-B200 <sub>3, 4, 5, 6</sub>		1100	2.20	172	CFM	197	195	194	191	187	184	181	166	151
					Sones	3.5	4.0	4.0	4.5	4.5	5.0	5.0	5.5	5.5

2 Available with light

3 Available with CRD - Ceiling Radiation Damper

4 Also available with 50 Hz motors (See page 20 for performance)

5 UL Listed for use above tubs.

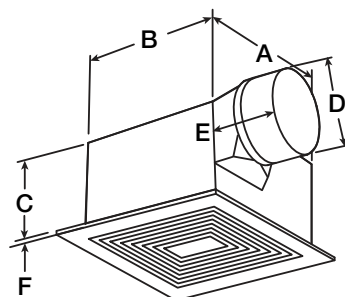
6 Available with 277 volt motor.

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 (1.5m) 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-C Dimensions

Model	A	B	C	D	E	F	Decorative Grille	Unit Weight
50	7 $\frac{1}{2}$ (191)	7 $\frac{1}{2}$ (191)	3 $\frac{5}{8}$ (92)	3 (76)	1 $\frac{5}{8}$ (41)	1/2 (13)	9 $\frac{1}{4}$ x 9 (235 x 229)	5 (2)

All dimensions are in inches (millimeters) and weight in pounds (kilograms). For complete dimensional information, see CAPS submittal drawings.



\*Note: Amp draw is approximate and may vary based on motor manufacturer.

Model	RPM	Amps*	Watts	CFM / Static Pressure in Inches wg						
				0	0.1	0.125	0.25	0.375	0.5	0.625
SP-C50	1680	0.80	46	CFM	52	49	49	47	44	38
				Sones	3.0	3.0	3.0	3.0	3.5	4.0

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 (1.5m) 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.

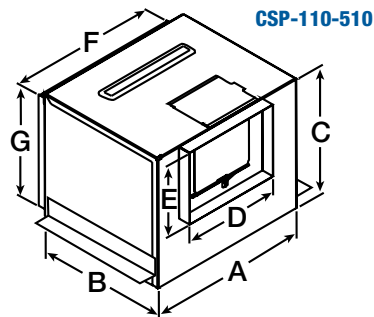
# Model CSP-A

## Premium Inline Fan

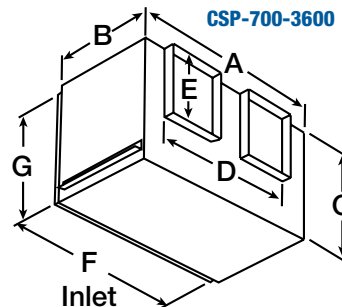
### Model CSP-A Dimensions

Model	A	B	C	D	E	F	G	Unit Weight
110, 125, 190	13 $\frac{1}{4}$ (337)	10 $\frac{5}{8}$ (270)	9 (229)	8 (203)	6 (152)	12 (305)	9 $\frac{1}{4}$ (235)	16 (7)
200, 250, 290, 390	14 (356)	11 $\frac{7}{8}$ (302)	11 $\frac{1}{4}$ (286)	8 (203)	8 (203)	12 $\frac{7}{8}$ (327)	10 (254)	23 (10)
410, 510	18 (457)	14 $\frac{3}{8}$ (365)	14 $\frac{1}{2}$ (368)	8 (203)	8 (203)	16 $\frac{7}{8}$ (429)	13 $\frac{1}{4}$ (337)	36 (16)
700	23 $\frac{5}{8}$ (600)	11 $\frac{5}{8}$ (295)	11 $\frac{5}{8}$ (295)	19 $\frac{1}{2}$ (495)	8 (203)	22 $\frac{5}{8}$ (575)	10 $\frac{1}{2}$ (267)	34 (15)
710, 780	18 (457)	14 $\frac{3}{8}$ (365)	14 $\frac{1}{2}$ (368)	10 (254)	8 (203)	16 $\frac{7}{8}$ (429)	13 $\frac{1}{4}$ (337)	36 (16)
900, 1050, 1410, 1550	23 $\frac{3}{4}$ (603)	14 $\frac{3}{8}$ (365)	14 $\frac{1}{2}$ (368)	18 $\frac{3}{4}$ (476)	8 (203)	22 $\frac{5}{8}$ (575)	13 $\frac{1}{4}$ (337)	59 (27)
1750, 2150	35 (889)	14 $\frac{3}{4}$ (375)	14 $\frac{3}{4}$ (375)	28 (711)	6 (152)	32 $\frac{3}{4}$ (832)	13 (330)	68 (31)
3600	45 $\frac{1}{2}$ (1156)	16 $\frac{1}{2}$ (419)	16 $\frac{1}{2}$ (419)	40 (1016)	11 (279)	43 $\frac{1}{4}$ (1099)	14 $\frac{5}{8}$ (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 1 $\frac{1}{2}$  in. (38 mm). For complete dimensional information, see CAPS submittal drawings.



CSP-110-510



CSP-700-3600



\*Note: Amp draw is approximate and may vary based on motor manufacturer.

Model	RPM	Amps*	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
CSP-A110	950	0.62	48.7	CFM	124	112	110	102	77					
				Sones	0.8	0.8	0.8	0.9	0.9					
CSP-A125 <sub>6</sub>	1100	0.63	52.5	CFM	138	126	124	114	91					
				Sones	1.1	1.1	1.1	1.0	1.2					
CSP-A190 <sub>4,6</sub>	1400	1.10	100	CFM	215	202	198	180	159	121				
				Sones	2.0	1.5	2.0	2.0	2.5	2.5				
CSP-A200	900	0.43	48.2	CFM	254	231	226	203	178	145	109	70		
				Sones	0.6	0.4	0.5	0.9	1.0	1.3	1.5	1.5		
CSP-A250	1000	0.79	82.7	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		
CSP-A290 <sub>4</sub>	1050	0.71	80.7	CFM	318	299	292	265	248	229	201	144		
				Sones	1.1	1.2	1.3	2.0	2.5	3.5	3.0	3.0		
CSP-A390	1350	1.33	140	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		
CSP-A410	1000	1.87	135	CFM	447	441	403	364	317	217				
				Sones	1.5	1.5	1.5	2.0	2.0	2.0				
CSP-A510	1070	3.11	217	CFM	545	514	506	464	405	324				
				Sones	2.5	2.0	2.0	2.0	2.0	2.5				
CSP-A700	1100	3.20	350	CFM	766	755	752	739	726	702	678	635	549	418
				Sones	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	4.0
CSP-A710	1080	4.40	325	CFM	737	698	688	635	567	475	334			
				Sones	2.5	2.5	2.5	2.5	2.0	2.0	2.0			
CSP-A780 <sub>4</sub>	1600	3.77	405	CFM	813	784	777	742	707	672	638	603	567	527
				Sones	3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	3.0	3.5
CSP-A900	950	4.87	328	CFM	908	852	841	782	715	631				
				Sones	1.4	1.4	1.4	2.0	2.5	3.0				
CSP-A1050 <sub>4</sub>	1095	6.65	455	CFM	1182	1110	1093	1013	922	832	743			
				Sones	2.5	2.5	2.5	2.5	2.5	2.5	2.5			
CSP-A1410	1450	7.80	822	CFM	1584	1543	1533	1483	1439	1395	1345	1293	1238	1181
				Sones	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
CSP-A1550 <sub>4</sub>	1610	8.32	830	CFM	1672	1618	1604	1543	1484	1427	1367	1307	1240	1172
				Sones	5.0	4.5	4.5	4.5	4.5	4.0	4.0	4.5	4.5	4.5
CSP-A1750	1130	6.60	550	CFM	1842	1768	1749	1619	1464	1284	1032	772	484	
				Sones	5.0	5.0	5.0	4.5	4.0	4.0	3.5	3.0	3.0	
CSP-A2150	1100	7.80	735	CFM	2249	2175	2156	2044	1900	1701	1424	1114		
				Sones	5.0	4.5	4.5	4.0	4.0	4.0	3.0	3.0		
CSP-A3600	1100	7.10	1330	CFM	3778	3653	3622	3460	3280	3091	2844	2551	2232	1750
				Sones	5.0	5.0	5.0	5.0	4.5	4.0	4.0	4.0	3.5	3.5

4 Units also available with 50 Hz motors (See page 21 for performance)

6 Available with 277 volt motor.

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 (1.5m) 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. The AMCA Certified Ratings Seal applies to air performance ratings only.

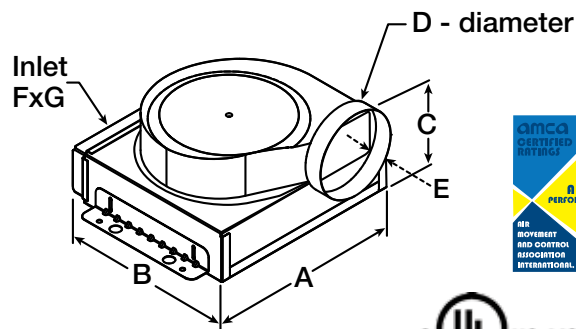
# Model CSP-B

## Deluxe Inline Fan

### Model CSP-B Dimensions

Model	A	B	C	D	E	F	G	Unit Weight
110, 150, 200	13 <sup>7</sup> / <sub>8</sub> (352)	11 <sup>1</sup> / <sub>2</sub> (292)	7 (178)	6 (152)	1 <sup>1</sup> / <sub>4</sub> (32)	10 <sup>1</sup> / <sub>4</sub> (260)	3 <sup>1</sup> / <sub>4</sub> (83)	10 <sup>1</sup> / <sub>4</sub> (5)

All dimensions are in inches (millimeters) and weight in pounds (kilograms).  
Outlet connection width is 1 in. (25 mm) - Mounting bracket width is 1<sup>1</sup>/<sub>2</sub> in. (38 mm).  
For complete dimensional information, see CAPS submittal drawings.



\*Note: Amp draw is approximate and may vary based on motor manufacturer.

Model	RPM	Amps*	Watts	CFM / Static Pressure in Inches wg								
					0	0.1	0.125	0.25	0.375	0.5	0.625	0.75
CSP-B110 <sub>4,6</sub>	950	1.14	80	CFM	103	100	100	98	97	96	94	86
				Sones	1.5	1.5	1.5	2.0	2.0	2.0	2.5	2.5
CSP-B150 <sub>4,6</sub>	1050	1.70	129	CFM	151	150	149	148	144	146	142	135
				Sones	2.0	2.0	2.0	2.0	2.5	2.5	3.0	3.0
CSP-B200 <sub>4,6</sub>	1100	2.20	173	CFM	186	184	184	182	181	179	175	170
				Sones	3.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5

4 Units also available with 50 Hz motors  
(See page 21 for performance)

6 Available with 277 volt motor.

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 (1.5m) 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. The AMCA Certified Ratings Seal applies to air performance ratings only.

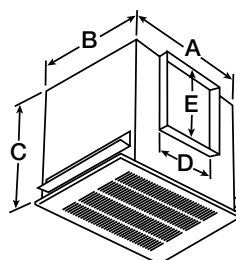
# Model SP

## 50 Cycle Performance

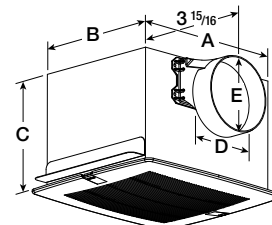
For uses in countries with 50 cycle (50 Hz) power, Greenheck offers the same reliability and performance for ceiling mounted exhaust fans model SP.

- Same dimensions and outlet options
- Performance shown in 50 cycle RPMs
- Full-line of grille and discharge accessories available

**SP-A 110-510, 710, 780**



**SP-A 50-90**



### Model SP Dimensions

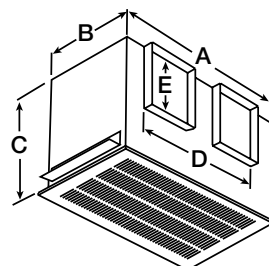
SP-A	A	B	C	D	E	Designer Grille*	Decorative Grille	Unit Weight
50, 70, 90	13 <sup>1</sup> / <sub>4</sub> (337)	10 <sup>5</sup> / <sub>8</sub> (270)	9 (229)	6 (152)				12 (5)
110, 125, 190	13 <sup>1</sup> / <sub>4</sub> (337)	10 <sup>5</sup> / <sub>8</sub> (270)	9 (229)	8 (203)	6 (152)	14 <sup>7</sup> / <sub>8</sub> x 13 <sup>1</sup> / <sub>4</sub> (378 x 337)	15 <sup>1</sup> / <sub>4</sub> (387) square	17 (8)
200, 250, 290, 390	14 (356)	11 <sup>7</sup> / <sub>8</sub> (302)	11 <sup>1</sup> / <sub>4</sub> (286)	8 (203)	8 (203)			24 (11)
410, 510	18 (457)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	8 (203)	8 (203)	19 <sup>9</sup> / <sub>8</sub> x 16 <sup>3</sup> / <sub>8</sub> (492 x 416)		31 (14)
710, 780	18 (457)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	10 (254)	8 (203)	19 <sup>9</sup> / <sub>8</sub> x 16 <sup>3</sup> / <sub>8</sub> (492 x 416)	—	34 (15)
900, 1050, 1410, 1550	23 <sup>3</sup> / <sub>4</sub> (603)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (476)	18 <sup>3</sup> / <sub>4</sub> (476)	8 (203)	25 x 16 <sup>3</sup> / <sub>8</sub> (635 x 416)		56 (25)

Outlet connection width is 1 in. (25 mm) - Mounting bracket width is 1<sup>1</sup>/<sub>2</sub> in. (38 mm).

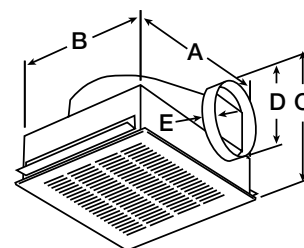
SP-B	A	B	C	D	E	Designer Grille	Decorative Grille	Unit Weight
50, 70 & 80	13 <sup>5</sup> / <sub>8</sub> (352)	11 <sup>1</sup> / <sub>2</sub> (292)	7 (178)	6 (152)	1 <sup>1</sup> / <sub>4</sub> (32)	14 <sup>7</sup> / <sub>8</sub> x 13 <sup>1</sup> / <sub>4</sub> (378 x 337)	15 <sup>1</sup> / <sub>4</sub> (387) square	9 (4)
90, 110, 150, 200	13 <sup>5</sup> / <sub>8</sub> (352)	11 <sup>1</sup> / <sub>2</sub> (292)	7 (152)	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)		10 (5)

All dimensions are in inches (millimeters) and weight in pounds (kilograms). \*Add 1<sup>1</sup>/<sub>2</sub> in. (38 mm) to C dimension for incandescent light. Mounting bracket width is 1<sup>1</sup>/<sub>2</sub> in. (38 mm). For complete dimensional information, see CAPS submittal drawings. \*Sizes 410 and larger have an aluminum grille as standard.

**SP-A (double-wide) 700, 900-1550**



**SP-B 50-200**



\*Note: Amp draw is approximate and may vary based on motor manufacturer.

Model	RPM	Amps*	Watts		CFM / Static Pressure in Inches of wg.							
					0.000	0.050	0.100	0.125	0.150	0.250	0.375	0.500
<b>SP-A110</b> (50 Hertz Motor)	950	0.29	49	CFM	119	115	110	106	103	88		
				Sones	1.3	1.3	1.2	1.2	1.3	1.6		
<b>SP-A190</b> (50 Hertz Motor)	1400	0.65	113	CFM	216	206	197	192	187	167	133	
				Sones	3.2	3.0	2.8	2.9	2.9	3.1	3.4	
<b>SP-A290</b> (50 Hertz Motor)	1050	0.36	81	CFM	329	315	302	296	290	262	222	164
				Sones	3.2	3.3	3.3	3.3	3.4	3.7	4.0	4.9
<b>SP-A390</b> (50 Hertz Motor)	1350	0.67	135	CFM	410	402	395	392	387	368	345	325
				Sones	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.3
<b>SP-A510</b> (50 Hertz Motor)	900	1.65	224	CFM	447	425	400	388	376	315	159	
				Sones	3.7	3.5	3.3	3.3	3.3	3.1	2.6	
<b>SP-A780</b> (50 Hertz Motor)	1334	1.65	348	CFM	677	659	642	633	625	591	544	493
				Sones	8.8	8.9	8.8	8.7	8.6	8.2	8.1	8.1
<b>SP-A1050</b> (50 Hertz Motor)	950	3.15	420	CFM	990	945	905	886	867	769	531	
				Sones	7.2	7.0	6.8	6.8	6.8	6.6	6.5	
<b>SP-A1550</b> (50 Hertz Motor)	1340	4.3	818	CFM	1337	1314	1290	1279	1266	1211	1161	1112
				Sones	11.1	10.7	10.6	10.6	10.6	10.5	11.6	13.5
<b>SP-B90</b> (50 Hertz Motor)	700	0.325	50	CFM	102	97	92	88	86	75	59	45
				Sones	1.9	2.2	2.6	2.7	2.7	3.0	3.6	4.1
<b>SP-B110</b> (50 Hertz Motor)	950	0.57	80	CFM	133	124	114	110	107	97	95	94
				Sones	2.0	2.0	2.1	2.2	2.2	2.4	2.7	2.8
<b>SP-B150</b> (50 Hertz Motor)	1050	0.85	129	CFM	160	158	156	155	155	154	152	149
				Sones	3.0	3.1	3.3	3.3	3.4	3.7	4.3	4.5
<b>SP-B200</b> (50 Hertz Motor)	1100	1.1	173	CFM	197	196	195	194	194	191	187	184
				Sones	4.4	4.7	4.6	4.7	4.9	5.1	5.6	5.8

Model SP with 50 hertz motor is not AMCA certified or ENERGY STAR® qualified.



# Model CSP

## 50 Cycle Performance

For uses in countries with 50 cycle (50 Hz) power, Greenheck offers the same reliability and performance for inline cabinet fans model CSP.

- Same dimensions and outlet options
- Performance shown in 50 cycle RPMs
- Full line of discharge accessories available

### Model CSP Dimensions

CSP-A	A	B	C	D	E	F	G	Unit Weight
110, 125, 190	13 <sup>1</sup> / <sub>4</sub> (337)	10 <sup>5</sup> / <sub>8</sub> (270)	9 (229)	8 (203)	6 (152)	12 (305)	9 (235)	16 (7)
200, 250, 290, 390	14 (356)	11 <sup>7</sup> / <sub>8</sub> (302)	11 <sup>1</sup> / <sub>4</sub> (286)	8 (203)	8 (203)	12 <sup>7</sup> / <sub>8</sub> (327)	10 (254)	23 (10)
410, 510	18 (457)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	8 (203)	8 (203)	16 <sup>7</sup> / <sub>8</sub> (429)	13 <sup>1</sup> / <sub>4</sub> (337)	36 (16)
700	23 <sup>5</sup> / <sub>8</sub> (600)	11 <sup>5</sup> / <sub>8</sub> (295)	11 <sup>3</sup> / <sub>8</sub> (295)	19 <sup>1</sup> / <sub>2</sub> (495)	8 (203)	22 <sup>5</sup> / <sub>8</sub> (575)	10 <sup>1</sup> / <sub>2</sub> (267)	34 (15)
710, 780	18 (457)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	10 (254)	8 (203)	16 <sup>7</sup> / <sub>8</sub> (429)	13 <sup>1</sup> / <sub>4</sub> (337)	36 (16)
900, 1050, 1410, 1550	23 <sup>3</sup> / <sub>4</sub> (603)	14 <sup>3</sup> / <sub>8</sub> (365)	14 <sup>1</sup> / <sub>2</sub> (368)	18 <sup>3</sup> / <sub>4</sub> (476)	8 (203)	22 <sup>5</sup> / <sub>8</sub> (575)	13 <sup>1</sup> / <sub>4</sub> (337)	59 (27)
1750, 2150	35 (889)	14 <sup>3</sup> / <sub>4</sub> (375)	14 <sup>3</sup> / <sub>4</sub> (375)	28 (711)	6 (152)	32 <sup>3</sup> / <sub>4</sub> (832)	13 (330)	68 (31)
3600	45 <sup>1</sup> / <sub>2</sub> (1156)	16 <sup>1</sup> / <sub>2</sub> (419)	16 <sup>1</sup> / <sub>2</sub> (419)	40 (1016)	11 (279)	43 <sup>1</sup> / <sub>4</sub> (1099)	14 <sup>5</sup> / <sub>8</sub> (371)	122 (55)
CSP-B	A	B	C	D	E	F	G	Unit Weight
110, 150, 200	13 <sup>7</sup> / <sub>8</sub> (352)	11 <sup>1</sup> / <sub>2</sub> (292)	7 (178)	6 (152)	1 <sup>1</sup> / <sub>4</sub> (32)	10 <sup>1</sup> / <sub>4</sub> (260)	3 <sup>1</sup> / <sub>4</sub> (83)	10 <sup>1</sup> / <sub>4</sub> (5)

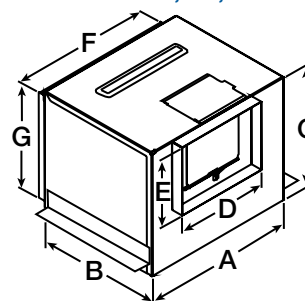
All dimensions are in inches (millimeters) and weight in pounds (kilograms). Inlet and outlet connection widths are 1 in. (25 mm) - Mounting bracket width is 1<sup>1</sup>/<sub>2</sub> in. (38 mm). For complete dimensional information, see CAPS submittal drawings.

\*Note: Amp draw is approximate and may vary based on motor manufacturer.

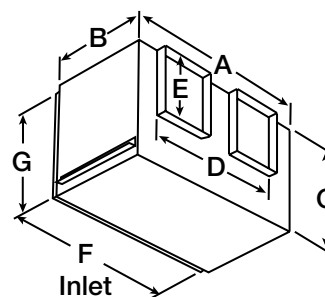
Model	RPM	Amps*	Watts		CFM / Static Pressure in Inches of wg								
					0.000	0.050	0.100	0.125	0.150	0.250	0.375	0.500	0.625
<b>CSP-A110</b> (50 Hertz Motor)	950	0.31	51	CFM	124	116	112	110	109	102	77		
				Sones	1.1	1.1	1.1	1.1	1.1	1.3	1.3		
<b>CSP-A190</b> (50 Hertz Motor)	1400	0.55	100	CFM	215	202	198	180	159	121			
				Sones	2.3	2.0	2.2	2.7	2.9	3.0			
<b>CSP-A390</b> (50 Hertz Motor)	1350	0.665	144	CFM	412	400	397	382	363	339	324	309	
				Sones	2.8	2.7	2.8	3.2	3.7	4.7	5.5	6.5	
<b>CSP-A780</b> (50 Hertz Motor)	1334	1.885	405	CFM	685	656	648	609	562	520	481		
				Sones	5.0	4.9	4.8	4.7	4.6	4.7	4.9		
<b>CSP-A1050</b> (50 Hertz Motor)	950	3.325	455	CFM	1079	1031	982	957	934	841	655		
				Sones	6.3	6.3	6.0	5.9	5.9	6.0	5.5		
<b>CSP-A1550</b> (50 Hertz Motor)	1340	4.16	830	CFM	1391	1326	1311	1240	1171	1098	1019	929	
				Sones	7.5	7.4	7.4	7.3	7.4	7.3	7.3	7.2	
<b>CSP-B110</b> (50 Hertz Motor)	950	0.57	80	CFM	103	102	100	99	99	98	97	96	93
				Sones	2.0	1.9	2.0	2.1	2.1	2.3	2.6	2.7	3.1
<b>CSP-B150</b> (50 Hertz Motor)	1050	0.85	129	CFM	151	150	149	149	149	148	148	145	142
				Sones	2.5	2.7	2.7	2.7	2.7	2.9	3.1	3.4	3.6
<b>CSP-B200</b> (50 Hertz Motor)	1100	1.1	173	CFM	186	185	184	183	183	182	180	178	175
				Sones	3.4	3.7	3.6	3.7	3.7	4.0	4.1	4.1	4.3

Model CSP with 50 hertz motor is not AMCA certified or ENERGY STAR® qualified.

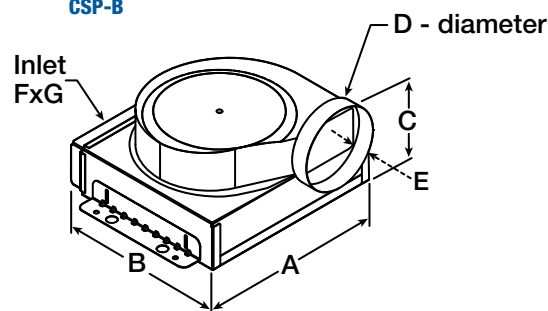
**CSP-A 110-510, 710, 780**



**CSP-A (double wide) 700, 900-3600**



**CSP-B**





## Models SP-A50 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 1/2 inch (13 mm) acoustical insulation. The outlet duct collar shall include a polypropylene backdraft damper on SP-A50 - 90 and a spring loaded aluminum backdraft damper on SP-A110 and larger. Outlet shall be adaptable for horizontal or vertical discharge. The designer 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 or wall mount 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 or ENERGY STAR® qualified.

## 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 designer 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-2in 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 or wall mount 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 or ENERGY STAR® qualified.

## Model SP-C50

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 a sleeve for ease of connection to 3 inch (76 mm) and 4 inch (102 mm) round ductwork and shall include a backdraft damper. The grille shall be constructed of non-yellowing high-impact polystyrene and attached to the housing with torsion springs.

The wheels shall be constructed of high-strength polymer. The access for wiring shall be easily accessible internally. The motor disconnect shall be internal and of the plug-in type. All fans shall bear the AMCA Certified Ratings program AMCA Sound and Air Performance seal. Model SP-C50 shall be UL Listed. Fans shall be model SP-C50 as supplied by Greenheck Fan Corporation, Schofield, Wisconsin.

\*Model SP-C fans with 50 hertz motors are not AMCA certified or ENERGY STAR® qualified.



## Models CSP-A110 thru A3600

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 1/2 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 or wall mount 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 or ENERGY STAR® qualified.

## Models CSP-B110, B150 and B200

Duct-mounted exhaust, supply or return air 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 inch (152 mm) in diameter to accept 6-inch (152 mm) round ductwork and shall include a backdraft damper. The access for wiring shall be external. The motor disconnect shall be internal and of the plug-in type.

The motor shall 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 Air Performance seal and shall be UL/cUL Listed. Ceiling or wall mount fans shall be model CSP-B110, B150 or B200 as manufactured by Greenheck Fan Corporation, Schofield, Wisconsin.

\*Model CSP-B fans with 50 hertz motors are not AMCA certified or ENERGY STAR® qualified.



# ENERGY STAR® Qualified SP Fans



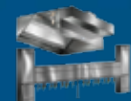
ENERGY STAR® qualified Greenheck SP fans provide an energy efficient alternative to help save money and resources.

See Pages 16 and 17 for specific model selections.

## SP-A Models



## SP-B Models



## Our Warranty

Greenheck Fan Corporation warrants its SP/CSP products to be free of any defect in material or workmanship for a period of three years from the date of shipment. In the event of such a defect during the warranty period, Greenheck Fan Corporation agrees, at its option, to either repair or replace the defective product free of charge. This warranty runs to the original purchaser of such SP/CSP products for a period of three years from the date of shipment. Any product repaired or replaced under this warranty will, itself, be warranted only for the remainder of the warranty period of the original product being repaired or replaced. All light bulbs are excluded under this limited warranty. Greenheck Fan Corporation is not responsible for any removal, installation, or transportation cost.

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



Prepared to Support  
Green Building Efforts

