MODELS SP & CSP
Ceiling & Inline Cabinet
Exhaust Fans

Making a Sound Difference with Silent Solutions
**Ceiling and Cabinet Exhaust Fans**

Great things come in small packages, as do our ceiling fans (Model SP) and cabinet fans (Model CSP). Be assured when you buy any Greenheck product, you are getting a quality product at a competitive price. In fact, we guarantee our ceiling and cabinet exhaust fans with a 3 year warranty. We offer the most comprehensive ceiling and cabinet exhaust fan line in the commercial market. We are your market leader!

**Benefits**

- Low sound
- Compact size
- Competitive price
- Broadest performance selections in the industry

**Go Inside the Numbers**

- Greenheck has been providing solutions for over 50 years.
- Preferred 3 to 1 over the competition
- Number 1 in product quality and reliability.
- Number 1 in customer satisfaction and after-sale customer service support.
- More than 400 times a day a new ceiling fan is put into service.
- 3 year warranty.

Greenheck certifies that the SP and 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 AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

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.

**Leading Edge Technical Support**

When you need extensive product information look no further. Greenheck products are supported by the industry’s best product literature, ranging from Catalogs, Installation and Operation Manuals (IOM’s), Electronic Media, Computer Aided Selection Program (CAPS) and more. All of these can be found at www.greenheck.com

Count on personal service and expertise from our national and international representative organization. To locate your nearest Greenheck representative, call (715) 359-6171 or visit us at www.greenheck.com
Model Number Code

SP - A 50 FL

Light Options:
- L - Fan/Light (Incandescent) Combination
- FL - Fan/Light (Fluorescent) Combination

Nominal cfm at 0.10 inches static pressure

Level of Construction:
- A - Premium unit; lowest sound, insulated housing
- B - Deluxe unit; low sound, low profile
- C - Standard unit; lowest profile, inexpensive

Model:
- SP - Silent Partner
- CSP - Cabinet Silent Partner

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Quick Delivery and Quick Build Programs

Order from hundreds of SP and CSP configurations, accessories, and thousands of other products that can ship to your job site in less than 24 hours. We have strategically located warehouses across the United States and Internationally to fill your request at a moments notice. Speed up your process even more by ordering your units at QD Online at www.greenheck.com/qd.

For other sizes and configurations where rapid response time is required, our Quick Build (QB) Program manufactures and ships your custom products in one, three, five, or ten days.
The SP-A is a Premium Ceiling Fan. It is in the top of its class when it comes to meeting sound requirements.

- Profile as low as 10 1/2 inches.
- Sound levels as low as 0.7 sones.
- Air volume as high as 1,607 cfm.
- UL Listed for above bathtub/shower with GFCI branch protected circuit.

**SP-A FEATURES**

1. **Spring Loaded Aluminum Backdraft Damper** - Eliminates rattling or unwanted backdrafts.

2. **Outlet** - Both square and round outlets are field rotatable from horizontal to vertical discharge.

3. **Power Assembly** - Removes quickly for maintenance or conversion from horizontal to vertical discharge.


5. **Electrical Knockouts (horizontal or vertical)** - Eliminates drilling holes.

6. **Acoustic Insulation** - Absorbs sound.

7. **Disconnect** - Servicing is quick and safe.

8. **Electrical Junction Box** - Large for easy wiring.

9. **Attractive Designer Grille** - Concealed attachment screws securely fasten grille to housing for quiet, rattle free operation.

10. **Mounting Brackets** - Fully adjustable for multiple installation conditions.

11. **Housing** - Embossed galvanized steel for rigidity.

12. **Motors** - All motors are compatible for use with speed controls and have thermal overload protection. Both domestic and international applications available.

   - 50 cycle, 220v, and 240v options. (See page 16 for availability)

   - 60 cycle, 115v, 208v, 220v, 230v, and 277v options. (See CAPS for availability)

**Grille Options**

- **Designer** - Standard Grille
- **Decorative** - Lighted and non-lighted
- **Aluminum** - White enamel finish
- **Stainless steel** - Polished stainless steel finish

**Round Duct Connection**

- **Standard** - Sizes A50, A70, and A90.

**Round Duct Adapter**

- **Optional** - Sizes A110 through A510

**Exclusive Electrical Wiring Feature**

Greenheck SP-A models are the only fans of this type with an electrical access cover located on the housing exterior. This feature permits external wiring without removing the power assembly, saving installation time and cost.

**Vertical Discharge**

Photo shows exhaust outlet duct installed in the optional vertical position. The power assembly must be rotated to match the duct adapter position. (See SP-A IOM)

**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.
**Light Options**

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

### Available on Sizes 50 - 125

**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. *(Patent Pending)*

**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.

**Compact Fluorescent Lamps (CFL)**

- Quick start bulbs
- Reflective light box *(Patent Pending)*
- Produce 90% less heat
- Lower energy costs
- Two 13 watt CFL bulbs equals 100 watts of incandescent light (included)

**Incandescent Lamps**

- Dimmable
- Reflective light box *(Patent Pending)*
- Low first-cost light
- One bulb provides up to 100 watts of light (by others)

### Cost of Lamps

<table>
<thead>
<tr>
<th></th>
<th>27 Watt Compact Fluorescent</th>
<th>100 Watt Incandescent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of Lamps</strong></td>
<td>$14.00</td>
<td>$0.50</td>
</tr>
<tr>
<td><strong>Lamp Life</strong></td>
<td>1642.5 days (4.5 years)</td>
<td>167 days</td>
</tr>
<tr>
<td><strong>Annual Energy Cost</strong></td>
<td>$5.91</td>
<td>$21.90</td>
</tr>
<tr>
<td><strong>Lamps Replaced in 4.5 years</strong></td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>$40.60</td>
<td>$103.55</td>
</tr>
<tr>
<td><strong>Savings Over Lamp Life</strong></td>
<td>$62.95</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Energy, August 2001
Office of Energy Efficiency and Renewable Energy

### Ceiling Radiation Damper

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

The Greenheck SP-A ceiling radiation damper is UL Classified, rated at three to four hours fire resistance, and is available on all SP-A fans and fan/light combinations. This design saves space by allowing the damper to mount directly beneath the fan.
The SP-B is a Deluxe Ceiling Fan compact enough for almost any application. If quiet is what you are after, this fan will accommodate your needs.

- Profile as low as 6 15/16 inches.
- Sound levels as low as 1.7 sones.
- Air volume as high as 197 cfm.
- UL Listed for above bathtub/shower with GFCI branch protected circuit.

**SP-B FEATURES**

1. **Aluminum Backdraft Damper** - Prevents unwanted backdrafts.
2. **Round Standard Outlet (4 or 6 in.)** - Versatile for quick, easy connections.
3. **Power Assembly** - Removes quickly for maintenance.
5. **Disconnect** - Servicing is quick and safe.
6. **Electrical Junction Box** - Large for easy wiring.
7. **Attractive Designer Grille** - Concealed attachment screws securely fasten grille to housing for quiet, rattle free operation.
8. **Mounting Brackets** - Fully adjustable for multiple installation types.
9. **Housing** - Embossed galvanized steel for rigidity and low profile for height restricted areas.
10. **Motors** - All motors are compatible for use with speed controls and have thermal overload protection. Both domestic and international applications available.

- 50 cycle, 220v, and 240v options. (See page 17 for availability)
- 60 cycle, 115v, 208v, 220v, 230v, and 277v options. (See CAPS for availability)

**Grille Options**

- **Designer** - Standard Grille
- **Decorative** - Lighted and non-lighted
- **Aluminum** - White enamel finish
- **Stainless steel** - Polished stainless steel finish

**Round Duct Connection**

- 4 in. - B50, B70, and B80
- 6 in. - B90, B110, B150, and B200

**Contractor 4 Paks**

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 assembly and grille are packaged in another box.

Components are shipped to coincide with the phase of your project.
Light Options
Greenheck’s new fan/light combination includes a prismatic or frosted lens, and compact fluorescent or incandescent lamps. Our unique patent pending light box is manufactured with a reflective material to increase the light given off by either lamp. UL Listed for above bathtub/showers with GFCI branch protected circuit.

Available on Sizes 50 - 150

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. (Patent Pending)

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.

Compact Fluorescent Lamps (CFL)
- Quick start bulbs
- Reflective light box (Patent Pending)
- Produce 90% less heat
- Lower energy costs
- Two 13 watt CFL bulbs equals 100 watts of incandescent light (included)

Incandescent Lamps
- Dimmable
- Reflective light box (Patent Pending)
- Low first-cost light
- One bulb provides up to 100 watts of light (by others)

A major advantage of using CFL’s is to save money, as shown in the table to the right. This study was based over a 4.5 year period.

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<thead>
<tr>
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<td>10</td>
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Source: U.S. Department of Energy, August 2001
Office of Energy Efficiency and Renewable Energy

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

The Greenheck SP-B ceiling radiation damper is UL Classified, rated at three to four hours fire resistance, and is available on all SP-B fans and fan/light combinations. This design saves space by allowing the damper to mount directly beneath the fan.
The SP-C is our economy ceiling fan designed for light commercial applications.

- Profile as low as 3 5/8 inches.
- Sound levels as low as 2.9 sones.
- Air volume as high as 52 cfm.
- UL Listed for above bathtub/shower with GFCI branch protected circuit.

### SP-C FEATURES

1. **Plastic Backdraft Damper** - Prevents unwanted backdrafts.
2. **Round Outlet** - 3 inch diameter allows quick easy connections.
3. **Power Assembly** - Removes quickly for maintenance.
4. **Disconnect** - Servicing is quick and safe.
5. **Polymeric Grille** - Quickly snaps into place.
6. **Mounting Brackets** - Adjustable for several installation types.
7. **Housing** - Galvanized steel for rigidity and low profile for height restricted areas.
8. **Motors** - Compatible for use with speed controls and has thermal overload protection.
   - 60 cycle, 115v
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.

What is the difference in a AMCA Sone vs. HVI Sones?
In general, the AMCA (Air Movement and Control Association) sone value is focused on commercial markets, whereas the HVI (Home Ventilating Institute) sone value is focused on residential markets. Both calculate their sone data from the same raw test data (eight octave bands), however an AMCA sone applies a hemispherical correction factor to the sound power and rounds to the nearest 0.1, whereas HVI applies a spherical correction factor to the sound power and rounds to the nearest 0.1 under 1.5 sones and to the nearest 0.5, 1.5 sones and greater. There are no conversions from one sone to the other, each must be calculated. In every instance the same fan will have a lower HVI calculated sone rating than an AMCA calculated sone rating.

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 chart above. For applications where sound levels are critical, a remote mounted CSP with ductboard is recommended. Placement of SP/CSP fans should take into account the desired sound level at the location of the listener. Their compact size allows 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.

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.

<table>
<thead>
<tr>
<th>Model</th>
<th>CFM</th>
<th>WG</th>
<th>FRPM</th>
<th>Sones</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP-A410</td>
<td>405</td>
<td>1/8</td>
<td>1000</td>
<td>3.7</td>
</tr>
<tr>
<td>CSP-A410</td>
<td>426</td>
<td>1/8</td>
<td>1000</td>
<td>2.1*</td>
</tr>
</tbody>
</table>

*Sone value with insulated inlet duct.

Remote mounted Model CSP with vibration isolators and insulated ductwork provides quietest installation.

Fiberglass ductboard

Model SP mounted directly overhead may be too loud for sound critical applications.
The CSP-A is a Premium Inline Fan. It outperforms the competition and is preferred by specifying engineers.

- Profile as low as 10 1/2 inches.
- Sound levels as low as 0.8 sones.
- Air volume as high as 3,778 cfm.
- UL/cUL Listed.

### CSP-A FEATURES

1. **Spring Loaded Aluminum Backdraft Damper** - Eliminates rattling or unwanted backdrafts.
2. **Outlet** - Both square and round outlets are field rotatable from horizontal to vertical discharge.
3. **Power Assembly** - Removes quickly for maintenance or conversion from horizontal to vertical discharge.
5. **Electrical Knockouts (horizontal or vertical)** - Eliminates drilling holes.
6. **Acoustic Insulation** - Absorbs sound.
7. **Disconnect** - Servicing is quick and safe.
8. **Electrical Junction Box** - Large for easy wiring.
9. **Access Panel** - Gain easy access to internal components once installed.
10. **Mounting Brackets** - Fully adjustable for multiple installation conditions.
11. **Housing** - Embossed galvanized steel for rigidity.
12. **Motors** - All motors are compatible for use with speed controls and have thermal overload protection. Both domestic and international applications available (*not shown*).
   - 50 cycle, 220v, and 240v options. (See page 18 for availability)
   - 60 cycle, 115v, 208v, 220v, 230v, and 277v options. (See CAPS for availability)

### Exclusive Electrical Wiring Feature

Greenheck CSP-A models are the only fans of this type with an electrical access cover located on the housing exterior. This feature permits external wiring without removing the power assembly, saving installation time and cost.

### Vertical Discharge

Photo shows exhaust outlet duct installed in the optional vertical position. The power assembly must be rotated to match the duct adapter position. (See CSP-A IOM)

### 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.
The CSP-B is a compact Deluxe Inline Fan. It is designed to fit in small remote quarters.
- Profiles as low as 6 15/16 inches.
- Sound levels as low as 2.0 sones.
- Air volume as high as 186 cfm.
- UL/cUL Listed.

**CSP-B FEATURES**

1. **Aluminum Backdraft Damper** - Prevents unwanted backdrafts.
2. **Round Standard Outlet (4 or 6 in.)** - Versatile for quick, easy connections.
3. **Power Assembly** - Removes quickly for maintenance.
5. **Disconnect** - Servicing is quick and safe.
6. **Electrical Junction Box** - Large for easy wiring.
7. **Access Panel** - Gain easy access to internal components once installed.
8. **Mounting Brackets** - Fully adjustable for multiple installation types.
9. **Housing** - Embossed galvanized steel for rigidity and low profile for height restricted areas.
10. **Motors** - All motors are compatible for use with speed controls and have thermal overload protection. Both domestic and international applications available.

- 50 cycle, 220v and 240v options.  
  (See page 19 availability)
- 60 cycle, 115v, 208v, 220v, 230v, and 277v options.  
  (See CAPS for availability)
**Accessories**

### 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 does not exceed the control rating.

**Model 5WSSC** - For use w/ shaded pole and PSC motors. Available shipped loose or mounted internal or external
- Rated for 115 - 127V, 5 Amp
- UL Listed
- Require a 2x4 handy box

**Model 5W240** - For use w/ shaded pole and PSC motors. Available shipped loose or mounted internal or external
- Rated for 220 - 240V, 5 Amp
- UL Listed
- Requires 2x4 handy box

**Model 5W277** - For use w/ shaded pole and PSC motors. Available shipped loose or mounted internal or external
- Rated for 277V, 5 Amp
- UL Listed
- Requires 2x4 handy box

**Model 8WSSC** - For use w/ shaded pole and PSC motors. Available shipped loose or mounted internal or external
- Rated for 220 - 240V, 8 Amp
- UL Listed
- Requires 2x4 handy box

**Model 10WSSC** - For use w/ shaded pole and PSC motors. Available shipped loose or mounted internal or external
- Rated for 115 - 127V, 10 Amp
- UL Listed
- Requires 4x4 handy box

**Model 15WSSC** - For use w/ shaded pole and PSC motors. Available shipped loose or mounted internal or external
- Rated for 115 - 127V, 15 Amp
- UL Listed
- Requires 4x4 handy box

### Switches

Switches may be used on Models SP and CSP fans to enable manual control of your fan or fan/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.

### Time Delay Switch

Time delay switches save energy by automatically turning off equipment. They may be used with Models SP and CSP fans and fan/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 the it has been turned off.

**Model GTD** - Single switch controls both fan and light. Available shipped loose.
- Silent Operation
- UL Listed
- Rated for 115V
- Requires 2x4 handy box
**Accessories**

**Motion Detectors**

Motion detectors may be used with Models SP and CSP fans, or fan and light combinations. Motion detectors use a passive infrared motion detector that will automatically turn on the fan when a change in temperature 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.

Grille Motion Detectors are available on models up to 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

**Transformers**

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

- **Model T-2.0** - UL Listed
  - Rated for 230/277 to 115, 2 Amps

- **Model T-4.3** - UL Listed
  - Rated for 230/277 to 115, 4.3 Amps

- **Model T-6.5** - UL Listed
  - Rated for 230/277 to 115, 6.5 Amps

- **Model T-8.6** - UL Listed
  - Rated for 230/277 to 115, 8.6 Amps

**Ceiling Radiation Damper**

The Greenheck SP-A and SP-B ceiling radiation dampers are UL Classified, rated at three to four hours fire resistance, and is available on all SP-A and SP-B fans and fan/light combinations. This design saves space by allowing the damper to mount directly beneath the fan.

**Filters**

Fans used in most applications, even where air is not excessively dirty, will collect airborne dirt on wheels and motors over time. 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. Fig. A (Filter Loss Chart) shows how the filter will have on performance. To determine the added resistance, divide the desired cfm by the filter area (ft²). This will give FPM. Use this with the filter loss chart to get the added resistance. In addition to reducing dirt accumulations on the motor and wheel, filters also reduce sound levels.

**DIMENSIONAL DATA**

<table>
<thead>
<tr>
<th>SP Model</th>
<th>Filter Model</th>
<th>Filter Model</th>
<th>Filter Area (ft²)</th>
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</thead>
<tbody>
<tr>
<td>SP-A50 - A190</td>
<td>F-200</td>
<td>F-210</td>
<td>.620</td>
</tr>
<tr>
<td>SP-B50 - B200, A200 - A390</td>
<td>F-200</td>
<td>F-220</td>
<td>.785</td>
</tr>
<tr>
<td>SP-A410 - A510</td>
<td>NA</td>
<td>F-250</td>
<td>1.319</td>
</tr>
<tr>
<td>SP-A710 - A780</td>
<td>NA</td>
<td>F-260</td>
<td>1.797</td>
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<tr>
<td>SP-A900 - A1550</td>
<td>NA</td>
<td>F-260</td>
<td>1.797</td>
</tr>
</tbody>
</table>

*Add an "L" to all CRD models if fan & light combo is used.
**Wall Discharge Accessories**

**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

<table>
<thead>
<tr>
<th>Model</th>
<th>For use with sizes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC-4</td>
<td>C50, B50-B80</td>
<td>6$\frac{1}{2}$</td>
<td>6</td>
<td>4</td>
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<tr>
<td>WC-6</td>
<td>B90-B120</td>
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<td>8</td>
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<tr>
<td>WC-8</td>
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<td>8</td>
<td>5$\frac{1}{8}$</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**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 RDC**
**Round Duct Connector**
- Replaces the standard square discharge duct-connector and damper.
- Uses existing mounting holes
- Galvanized steel construction
- RDC does not include a damper

**MODEL TR 6X4**
**Transition Duct Reducer**
- Reduces duct from 6 to 4 inches.
- Galvanized steel construction

<table>
<thead>
<tr>
<th>Model</th>
<th>For use with sizes</th>
<th>Dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDC-6</td>
<td>A110-A190</td>
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</tr>
<tr>
<td>RDC-8</td>
<td>A200-A510</td>
<td>8</td>
</tr>
</tbody>
</table>

**MODEL WC (Square/Rectangular Connections)**
**Hooded Wall Cap**
- Steel construction with black enamel finish
- For outside wall applications
- Built in birdscreen and damper

<table>
<thead>
<tr>
<th>Model</th>
<th>For use with sizes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC-10x3</td>
<td>50-290</td>
<td>5$\frac{1}{2}$</td>
<td>12$\frac{3}{4}$</td>
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<tr>
<td>WC-8x8</td>
<td>200-510</td>
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<td>10$\frac{1}{4}$</td>
<td>8$\frac{1}{4}$</td>
<td>8$\frac{1}{4}$</td>
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<tr>
<td>WC-18x8</td>
<td>700-1550</td>
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<td>20$\frac{1}{4}$</td>
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<td>18$\frac{1}{4}$</td>
<td>6$\frac{3}{4}$</td>
<td>5</td>
</tr>
</tbody>
</table>

**MODEL BVE**
**Brick Vent**
- Designed for installation in masonry walls
- Anodized aluminum construction
- Built in aluminum mesh insect screen

<table>
<thead>
<tr>
<th>Model</th>
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<th>A</th>
<th>B</th>
<th>C</th>
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<tr>
<td>BVE808</td>
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<td>BVE157</td>
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</table>

**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.
**Roof Discharge Accessories**

**MODEL RCC-7**
- Weathertight aluminum construction
- Integral birdscreen
- Built in curb cap
- Requires roof curb

<table>
<thead>
<tr>
<th>Model</th>
<th>For use with sizes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Throat Dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCC-7</td>
<td>50-390</td>
<td>15</td>
<td>12</td>
<td>10</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>GRS-10</td>
<td>410-710</td>
<td>19</td>
<td>20</td>
<td>1/2</td>
<td>6</td>
<td>1/8</td>
</tr>
<tr>
<td>GRS-12</td>
<td>780-1050</td>
<td>22</td>
<td>24</td>
<td>1/4</td>
<td>7</td>
<td>1/8</td>
</tr>
<tr>
<td>GRS-16</td>
<td>1410-2150</td>
<td>26</td>
<td>28</td>
<td>9/16</td>
<td>8</td>
<td>1/8</td>
</tr>
<tr>
<td>GRS-20</td>
<td>3600</td>
<td>30</td>
<td>35</td>
<td>9/4</td>
<td>4</td>
<td>1/4</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Model</th>
<th>For use with sizes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Throat Dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFC-7</td>
<td>50-390</td>
<td>18</td>
<td>12</td>
<td>10</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>GRSF-10</td>
<td>410-710</td>
<td>23</td>
<td>20</td>
<td>1/2</td>
<td>6</td>
<td>1/8</td>
</tr>
<tr>
<td>GRSF-12</td>
<td>780-1050</td>
<td>26</td>
<td>24</td>
<td>1/4</td>
<td>7</td>
<td>1/8</td>
</tr>
<tr>
<td>GRSF-16</td>
<td>1410-2150</td>
<td>30</td>
<td>28</td>
<td>9/16</td>
<td>8</td>
<td>1/8</td>
</tr>
<tr>
<td>GRSF-20</td>
<td>3600</td>
<td>34</td>
<td>35</td>
<td>9/4</td>
<td>4</td>
<td>1/4</td>
</tr>
</tbody>
</table>

**MODEL EL - 10x3**
- Designed for installation under roof eaves
- Painted steel grille
- Built in damper
- For SP/CSP sizes 50-290

**HANGING VIBRATION ISOLATORS**
Vibration isolator kits are available for suspended installations. Kits include all hardware necessary to mount one unit, with the exception of 10-32 threaded rod to be supplied by others. Fan mounting brackets include pre punched mounting holes for ease of installation.
DIMENSIONAL DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Std. Grille</th>
<th>Decorative Grille</th>
<th>Unit WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50, 70, 90</td>
<td>13 1/4</td>
<td>10 5/8</td>
<td>11 5/8</td>
<td>6</td>
<td>6</td>
<td>14 3/8 x 12 1/4</td>
<td>15 1/4 sq.</td>
<td>12</td>
</tr>
<tr>
<td>110, 125, 190</td>
<td>13 1/4</td>
<td>10 5/8</td>
<td>10 1/2</td>
<td>6</td>
<td>8</td>
<td>14 3/8 x 12 1/4</td>
<td>15 1/4 sq.</td>
<td>17</td>
</tr>
<tr>
<td>410, 510</td>
<td>18</td>
<td>14 3/8</td>
<td>14 3/8</td>
<td>8</td>
<td>8</td>
<td>19 3/8 x 16 3/8</td>
<td>-</td>
<td>31</td>
</tr>
<tr>
<td>710, 780</td>
<td>18</td>
<td>14 3/8</td>
<td>14 3/8</td>
<td>10</td>
<td>8</td>
<td>19 3/8 x 16 3/8</td>
<td>-</td>
<td>34</td>
</tr>
</tbody>
</table>

Outlet connection width is 1 inch - Mounting bracket width is 1 1/2 inch. For complete dimensional information, see CAPS submittal drawings. All dimensions are in inches.

PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>RPM</th>
<th>Amps</th>
<th>Watts</th>
<th>CFM</th>
<th>Static Pressure in inches of WG</th>
</tr>
</thead>
</table>
| 2.3.5 SP-A50 | 700 | 0.31 | 18    | 20  | 0.7
| 2.3.5 SP-A70 | 850 | 0.27 | 20    | 0.8
| 2.3.5 SP-A90 | 900 | 0.34 | 29    | 1.0
| 2.3.5 SP-A110| 950 | 0.58 | 49    | 0.8
| 2.3.5 SP-A125| 1100| 0.62 | 53    | 1.2
| 2.3.5 SP-A190| 1400| 1.30 | 113   | 2.0
| 3.3 SP-A200 | 900 | 0.43 | 48    | 48  |
| 3.3 SP-A250 | 1000| 0.77 | 83    | 2.0
| 3.4 SP-A290 | 1050| 0.72 | 81    | 2.0
| 3.4 SP-A390 | 1350| 1.34 | 135   | 4.5
| 3.4 SP-A410 | 1000| 1.74 | 121   | 3.0
| 3.4 SP-A510 | 1070| 3.30 | 224   | 4.5
| 3.4 SP-A700 | 1100| 3.20 | 350   | 5.5
| 3.4 SP-A710 | 1080| 4.40 | 285   | 6.0
| 3.4 SP-A780 | 1600| 3.30 | 348   | 8.5
| 3.4 SP-A900 | 950 | 4.00 | 285   | 4.5
| 3.4 SP-A1050| 1095| 6.30 | 420   | 6.0
| 3.4 SP-A1410| 1450| 7.40 | 786   | 9.5
| 3.4 SP-A1550| 1610| 8.60 | 818   | 10.0

1 HVI sones at 0.1 wg  2 Available with CRD - Ceiling Radiation Damper  3 Available with CRD - Ceiling Radiation Damper  4 Available with 50 Hz motors (See CAPS for performance)
5 UL Listed for use above tubs.  6 Available with 277 volt motor.

Performance shown 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 in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values are for installation type B: free inlet fan sone levels.
## Deluxe Ceiling Fan

### Dimensional Data

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>* C</th>
<th>D</th>
<th>E</th>
<th>Designer Grille</th>
<th>Decorative Grille</th>
<th>Unit WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50, 70, &amp; 80</td>
<td>13(\frac{7}{8})</td>
<td>11(\frac{1}{2})</td>
<td>6(\frac{15}{16})</td>
<td>4</td>
<td>3(\frac{3}{4})</td>
<td>14(\frac{7}{8}) x 12(\frac{1}{4})</td>
<td>15 (\frac{1}{4}) sq.</td>
<td>9</td>
</tr>
<tr>
<td>90, 110, 150, 200</td>
<td>13(\frac{7}{8})</td>
<td>11(\frac{1}{2})</td>
<td>7(\frac{15}{16})</td>
<td>6</td>
<td>11(\frac{1}{4})</td>
<td>14(\frac{7}{8}) x 12(\frac{1}{4})</td>
<td>15 (\frac{1}{4}) sq.</td>
<td>10</td>
</tr>
</tbody>
</table>

* Add 1.5 inches to C dimension for incandescent light.
Mounting bracket width is 1 1/2 inch.
For complete dimensional information, see CAPS submittal drawings.
All dimensions are in inches.

### Performance Data

#### CFM/Static Pressure in inches of WG

<table>
<thead>
<tr>
<th>Model</th>
<th>RPM</th>
<th>AMPS</th>
<th>Watts</th>
<th>CFM</th>
<th>Static Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>0.100</td>
</tr>
<tr>
<td>SP-B50</td>
<td>625</td>
<td>0.50</td>
<td>38</td>
<td>1.4</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sones</td>
<td>1.7</td>
</tr>
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<td>CFM</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sones</td>
<td>1.7</td>
</tr>
<tr>
<td>SP-B70</td>
<td>675</td>
<td>0.53</td>
<td>45</td>
<td>1.4</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sones</td>
<td>2.9</td>
</tr>
<tr>
<td>SP-B80</td>
<td>900</td>
<td>0.60</td>
<td>54</td>
<td>2.5</td>
<td>102</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Sones</td>
<td>1.9</td>
</tr>
<tr>
<td>SP-B90</td>
<td>700</td>
<td>0.65</td>
<td>50</td>
<td>2.0</td>
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<td></td>
<td></td>
<td></td>
<td>Sones</td>
<td>2.0</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>CFM</td>
<td>160</td>
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<td>Sones</td>
<td>3.0</td>
</tr>
<tr>
<td>SP-B110</td>
<td>950</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CFM</td>
<td>4.4</td>
</tr>
</tbody>
</table>

1 HVI sones at 0.1 wg
2 Available with light
3 Available with CRD - Ceiling Radiation Damper
4 Available with 50 Hz motors (See CAPS for performance)
5 UL Listed for use above tubs.
6 Available with 277 volt motor.

Performance shown 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 in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values are for installation type B: free inlet fan sone levels.

## Standard Ceiling Fan

### Dimensional Data

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Grille</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>7(\frac{7}{8})</td>
<td>7(\frac{1}{4})</td>
<td>3(\frac{9}{16})</td>
<td>3</td>
<td>1(\frac{5}{8})</td>
<td>1/2</td>
<td>9(\frac{1}{4}) x 9</td>
<td>5</td>
</tr>
</tbody>
</table>

For complete dimensional information, see CAPS submittal drawings.
All dimensions are in inches.

### Performance Data

#### CFM/Static Pressure in inches of WG

<table>
<thead>
<tr>
<th>Model</th>
<th>RPM</th>
<th>AMPS</th>
<th>Watts</th>
<th>CFM</th>
<th>Static Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.80</td>
<td>46</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>0.00</td>
<td>0.100</td>
</tr>
<tr>
<td>SP-C50</td>
<td>1680</td>
<td>0.80</td>
<td>46</td>
<td>52</td>
<td>49</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sones</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Performance shown 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 in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values are for installation type B: free inlet fan sone levels.
## Performance Data

<table>
<thead>
<tr>
<th>Model</th>
<th>RPM</th>
<th>AMPS</th>
<th>Watts</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.62</td>
<td>51</td>
</tr>
<tr>
<td>CSP-A125</td>
<td>1100</td>
<td>0.63</td>
<td>55</td>
</tr>
<tr>
<td>CSP-A190</td>
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<td>1.10</td>
<td>100</td>
</tr>
<tr>
<td>CSP-A200</td>
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<td>0.43</td>
<td>48</td>
</tr>
<tr>
<td>CSP-A250</td>
<td>1000</td>
<td>0.79</td>
<td>63</td>
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<td>144</td>
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<td>1000</td>
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<td>1100</td>
<td>3.20</td>
<td>350</td>
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<td>1600</td>
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<td>405</td>
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<td>830</td>
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<td>6.60</td>
<td>550</td>
</tr>
<tr>
<td>CSP-A2150</td>
<td>1100</td>
<td>7.80</td>
<td>735</td>
</tr>
<tr>
<td>CSP-A3600</td>
<td>1100</td>
<td>7.10</td>
<td>1330</td>
</tr>
</tbody>
</table>

Note: All dimensions are in inches. Inlet and outlet connections widths are 1 inch - Mounting bracket width is 1 1/2 inch.

For complete dimensional information, see CAPS submittal drawings.
**DELUXE INLINE FAN**

### DIMENSIONAL DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>110, 150, 200</td>
<td>13/8</td>
<td>11/2</td>
<td>6/8</td>
<td>6</td>
<td>11/4</td>
<td>10/4</td>
<td>31/4</td>
<td>10 1/4</td>
</tr>
</tbody>
</table>

Outlet connection width is 1 inch - Mounting bracket width is 1 1/2 inch
For complete dimensional information, see CAPS submittal drawings.
All dimensions are in inches.

### PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>RPM</th>
<th>AMPS</th>
<th>Watts</th>
<th>CFM/Static Pressure in inches of WG</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,6 CSP-B110</td>
<td>950</td>
<td>1.14</td>
<td>80</td>
<td>CFM: 103, 100, 99, 98, 97, 96, 93, 86</td>
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<td>Sones: 2.0, 2.0, 2.1, 2.3, 2.6, 2.7, 3.1, 3.3</td>
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<tr>
<td>4,6 CSP-B150</td>
<td>1050</td>
<td>1.70</td>
<td>129</td>
<td>CFM: 151, 149, 149, 148, 147, 145, 142, 134</td>
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<td>Sones: 2.5, 2.7, 2.7, 2.9, 3.1, 3.4, 3.6, 3.9</td>
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<tr>
<td>4,6 CSP-B200</td>
<td>1100</td>
<td>2.20</td>
<td>173</td>
<td>CFM: 186, 184, 183, 182, 180, 178, 175, 169</td>
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<td></td>
<td>Sones: 3.4, 3.6, 3.7, 4.0, 4.1, 4.1, 4.3, 4.5</td>
</tr>
</tbody>
</table>

4 Units available with 50 Hz motors (See CAPS for performance) 6 Available with 277 volt motor.

Performance shown is for Model CSP inline for installation type D: Insulated Ducted inlet, Ducted outlet. Performance ratings include the effects of a backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) from the test inlet duct in a hemispherical free field calculated per AMCA Standard 301. Values are for installation type D: Ducted inlet fan sone levels. Ratings do not include the effects of duct end correction.

### TYPICAL SPECIFICATIONS

**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 steel. The steel duct collar shall be 6 in. in diameter to accept 6 in. 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.

**MODELS CSP-B110 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 in. 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 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(s) shall be of the forward curved centrifugal type and dynamically balanced. All fans shall bear the AMCA Certified Ratings Seal for sound and air performance and shall be UL/cUL Listed. Ceiling or wall mount fans shall be Model SP as manufactured by Greenheck, Schofield, Wisconsin.

**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 calcium carbonate filled polypropylene and dynamically balanced. All fans shall bear the AMCA Certified Ratings Seal for sound and air performance and shall be UL/cUL Listed. Ceiling or wall mount fans shall be Model CSP-B110, B150 or B200 as manufactured by Greenheck, Schofield, Wisconsin.

**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 in. acoustical insulation. The outlet duct collar shall include an aluminum backdraft damper on all SP-A sizes and shall be spring loaded on size 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(s) shall be of the forward curved centrifugal type and dynamically balanced. All fans shall bear the AMCA Certified Ratings Seal for sound and air performance and shall be UL/cUL Listed. Ceiling or wall mount fans shall be Model CSP as manufactured by Greenheck, Schofield, Wisconsin.
**SP/CSP Limited Warranty**

Greenheck Fan Corporation warrants its SP/CSP products to be free of any defect in material or workmanship for a period of three (3) years from the date of purchase. 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 (3) years from the date of purchase. 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. For full SP/CSP warranty information visit www.greenheck.com.

Due to continuing research, Greenheck reserves the right to change specifications without notice.

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**Ceiling Fan Solutions**

- **Ceiling Fans**
  - SP-A110
  - SP-A50
  - SP-B50
- **Ceiling Fans w/ Light**
  - SP-A110
  - SP-A70
  - SP-B90
- **Ceiling Fans w/ CRD**
  - SP-A390
  - SP-A90
  - SP-B200
- **Ceiling Fans w/ Light & CRD**
  - SP-A125
  - SP-A90
  - SP-B80

**SP/CSP Limited Warranty**

Greenheck Fan Corporation warrants its SP/CSP products to be free of any defect in material or workmanship for a period of three (3) years from the date of purchase. 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 (3) years from the date of purchase. 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. For full SP/CSP warranty information visit www.greenheck.com.

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