Premium *Choice* Series
Ventilation Fans

Soler&Palau Ventilation Group

The World's Leading Producer of Air Movement Products

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Premium Choice Bathroom Fans

For YOUR Family & YOUR Home

Today's homes are built to be tighter and more energy efficient than ever before. Builders and homeowners use vapor barriers, caulking, and better sealed doors and windows to reduce energy loss caused by air infiltration. Tighter homes also mean that pollutants are trapped indoors. Poor indoor air quality, caused by trapped pollutants, is not only uncomfortable to the occupants, but it is a health hazard. Volatile Organic Compounds (VOCs) like formaldehyde, as well as cigarette smoke, radon, household cleaners, and perfumes can threaten your family's well being.

In addition to pollutants,= moisture from showers, baths and spas create foggy mirrors, steamy windows and damp walls. Moisture that is trapped in your home can lead to structural damage. Signs of structural damage include heavy condensation on windows, water damage on window sills and molds forming in cold corners of the home.

PC50

PC80 • PC110 • PC150

The Fan of YOUR Choosing

To protect the two most valuable investments of your life, your home and your family, improving indoor air quality is key. S&P fans remove air quickly, quietly and efficiently, extracting pollutants and moisture before they wreak havoc on your home.

S&P's Premium Choice Series gives you maximum flexibility to create the bath ventilation system that you need. Our Premium Choice bath fans come with standard grilles and you have the option of a lighted grille. You pick the size you need, lighted or unlighted and the controls you need. The choice is yours!

PC with Lighted Grille Kit

Continuous Ventilation/Whole-House Ventilation

ASHRAE 62.2 Residential Ventilation Standard

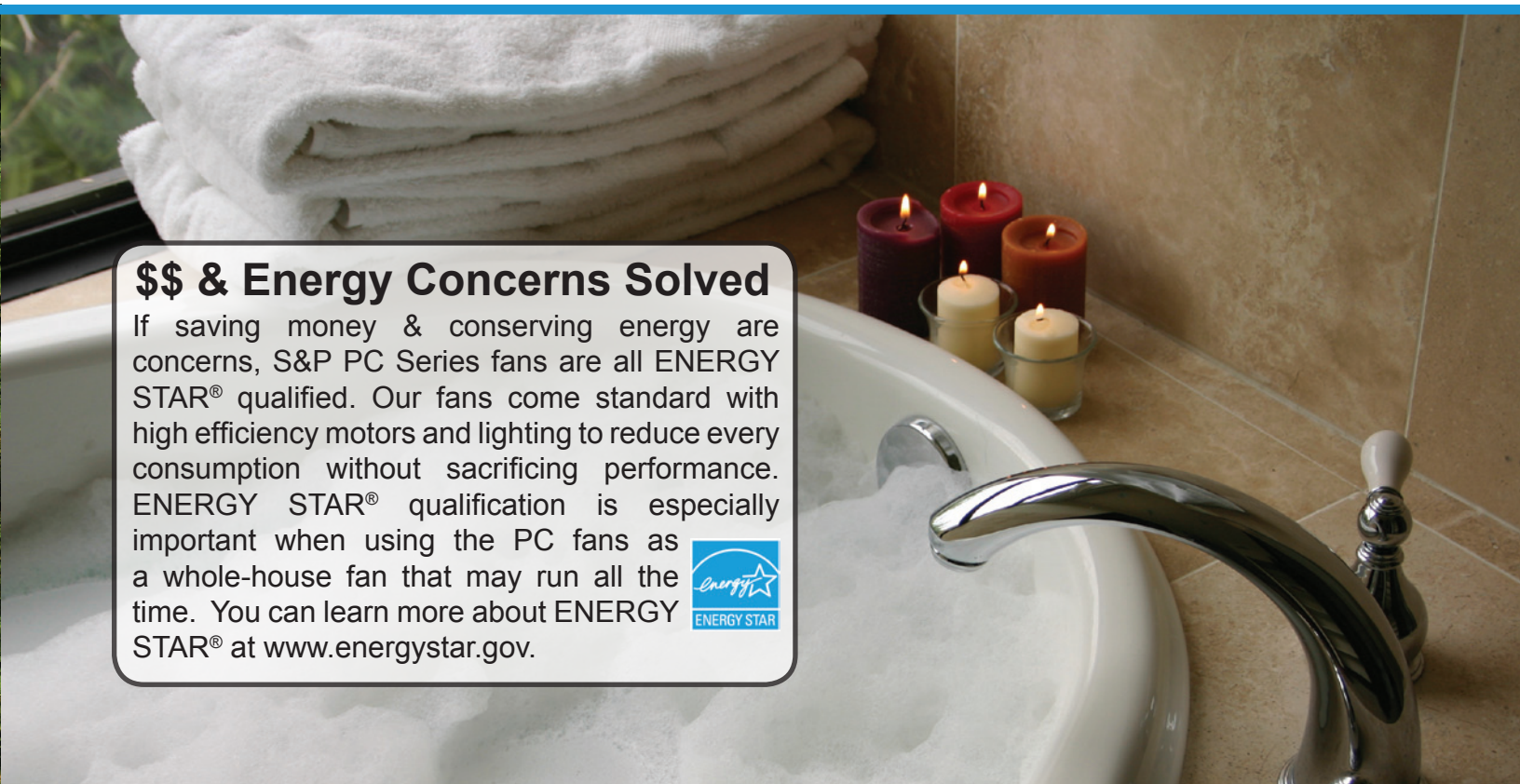
To ventilate today's tighter homes many codes call for relatively constant and controlled lower levels of ventilation. S&P PC fans are designed to meet or exceed ASHRAE 62.2 requirements with nearly silent continuous ventilation. Some of the programs that reference ASHRAE 62.2 Standards are LEED, ENERGY STAR® for Homes, and California Title 24.

Required ventilation is based on the size of the building and number of expect occupants. There are 2 ways to determine the CFM requirements:

1. Calculation:
   - Required Rate = ***Floor Area / 100 + (Number of Bedrooms + 1) x 7.5***
   - If the number of occupants exceeds the assumed 2 persons for the first bedroom and 1 for each additional room, increase the ventilation rate as follows:
     Number of additional occupants x 7.5 CFM

2. Use the Whole Building Ventilation Requirements CFM chart from the ASHRAE 62.2 Standard:

Floor Area (ft^2)	Bedrooms				
	0-1	2-3	4-5	6-7	>7
<1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
>7500	105	120	135	150	165



$$ & Energy Concerns Solved

If saving money & conserving energy are concerns, S&P PC Series fans are all ENERGY STAR® qualified. Our fans come standard with high efficiency motors and lighting to reduce every consumption without sacrificing performance. ENERGY STAR® qualification is especially important when using the PC fans as a whole-house fan that may run all the time. You can learn more about ENERGY STAR® at www.energystar.gov.

PC Series - ASHRAE 62.2 Standard Fan Sizing

Use the chart below to determine the best PC fan to meet the ASHRAE 62.2 Whole Building Requirement.

Floor Area (sq. ft.)	Number of Bedrooms				
	0-1	2-3	4-5	6-7	>7
	CFM Requirements/Recommended PC*				
<1500	30	45	60	75	90
	PC50	PC50	PC80	PC80	PC110
1501-3000	45	60	75	90	105
	PC50	PC80	PC80	PC110	PC110
3001-4500	60	75	90	105	120
	PC80	PC80	PC110	PC110	PC150
4501-6000	75	90	105	120	135
	PC80	PC110	PC110	PC150	PC150
6001-7500	90	105	120	135	150
	PC110	PC110	PC150	PC150	PC150
>7500	105	120	135	150	165
	PC110	PC150	PC150	PC150	PC150

*PC recommended based on performance at .1 in. WG.

Additional Fan Sizing Considerations

For the most effective bathroom ventilation, the Home Ventilating Institute (HVI) recommends eight air changes per hour. Fans should be installed as close to the shower as possible and, if marked as suitable for this location, directly over it to capture the moisture as directly as possible. Your fan should have a control or sensor that will allow the fan to run at least 20 to 30 minutes after each shower.

An enclosed toilet should have its own exhaust fan. Bathroom doors need to have at least 3/4” clearance to the finished floor to allow entry of makeup air. For steam showers, we recommend a separate fan in the steam room that you can turn on after use. Bathroom (continuous ventilation) should be available on a continuous basis at a minimum of 20 CFM in lieu of an intermittent 50 CFM fan.

Bath Fan Sizing - Spot Ventilation

PC fans not only meet whole-house ventilation needs but also the spot or local ventilation needs that are typically associated with fans. Spot ventilation remove excess shower humidity or bathroom odors.

Fan Sizing for Bathrooms Under 100 SQ. FT.

The following recommendations follow the Home Ventilating Institute (HVI) guidelines:

FAN SIZING FOR BATHROOMS UNDER 100 Sq. Ft.

The standard rule for bathrooms 100 square feet or smaller is one CFM per square foot of the bathroom. To find the square footage multiply the length of the bathroom by the width.

Example:
10’ x 10’ bathroom =100 square feet.
You will need a 100 CFM fan for this bathroom.

Fan Sizing for Bathrooms Over 100 SQ. FT.

The following recommendations follow the Home Ventilating Institute (HVI) guidelines:

Ventilation for baths over 100 square feet is calculated based on the fixtures in the bathroom. Allow 50 CFM for each standard toilet, shower, steam shower or tub. Whirlpool, garden and hot tubs are calculated at 100 CFM each. Add the CFM for all fixtures and you’ll have the total CFM required for the bathroom.

Step 1: Calculate Bathroom Size:
20’ x 10’ Bathroom =200 square feet
Step 2: 1 Toilet +1 Shower +1 Tub =150 CFM
Result: You will need a 150 CFM fan for this bathroom.

PC - Premium CHOICE Series

Features & Construction

- Extremely quite operation <0.3 to 1.1 Sones
- 80-150 CFM
- Aerodynamically engineered to move air with lowest power consumption and sound levels
- Motors operate with the lowest heat build up for long life even when run continuously - 5 year warranty
- PC80 to 150 feature 6” ducting for peak air movement at lower noise levels, PC50 features 4” ducting
- Low air leakage dampers minimize uncontrolled infiltration
- Robust steel housing
- Internal electrical wiring box
- Attractive, sturdy grille
- Thermally protected motor
- ETL Listed
- ENERGY STAR® qualified and HVI Certified

Performance

Model	CFM	Static Pressure (in W.G.)	Energy Efficiency (CFM/Watts)*	Watts	Power (V/Hz)	Sones	Amps
PC50	50/31	0.1/0.25	3.1	16	120/60	0.6	.13
PC80	80/60	0.1/0.25	3.0	32	120/60	0.3	.27
PC110	110/93	0.1/0.25	3.2	36	120/60	0.6	.30
PC150	150/110	0.1/0.25	3.8	41	120/60	1.1	.34

* Energy Star qualified data based on tested air flow and power consumption.

Dimensions

Model	Duct Dia.	Grille Size (Sq. in inches)	Cabinet Size (in Inches)			Unit Wgt. (lbs)
			W	D	H	
PC50	4”	10-1/4 x 10-1/2	9	9	5-3/4	6
PC80	6”	13 x 14	11-3/8	10-1/2	7-5/8	8
PC110	6”	13 x 14	11-3/8	10-1/2	7-5/8	9
PC150	6”	13 x 14	11-3/8	10-1/2	7-5/8	9

Premium CHOICE Series Options Overview

The simplicity of S&P's Premium CHOICE Series comes in the options. While other premium bath fans come as lighted fans or with a speed control or humidity sensor built in, our Premium Choice bath fans give you the flexibility to choose your grille and control separately. Our fans even allow you to change your mind after you install them!

Use the chart below to determine the options available with each Premium Choice Fan:

Option	Premium Choice Fan			
	PC50	PC80	PC110	PC150
	With Standard Grille			
Intermittent High Speed	✓	✓	✓	✓
Continuous 62.2 Speed Only	✓	✓	✓	✓
Continuous 62.2 Speed, Intermittent High Speed	✓	✓	✓	✓
Intermittent Reduced Speed	✓	✓	✓	✓
Humidity Sensing Only	✓	✓	✓	✓
Humidity Sensing and Intermittent High Speed	✓	✓	✓	✓
Contractor Pack		✓	✓	
	With Optional Lighted Grille Kit			
Intermittent High Speed		✓	✓	✓
Continuous 62.2 Speed Only		✓	✓	✓
Continuous 62.2 Speed, Intermittent High Speed		✓	✓	✓
Intermittent Reduced Speed		✓	✓	✓
Humidity Sensing Only		✓	✓	✓
Humidity Sensing and Intermittent High Speed		✓	✓	✓

PCLK - Premium CHOICE Series Light Kits

Grille Light Kits

S&P offers Premium Choice Series Light Kits so you can choose a fan with lights now or later. This kit fits the PC80, 110 & 150. The lighted grilles come standard with a 13 watt GU34 flourescent bulb and a 4 watt night light.

Premium CHOICE Series Controls

Humidity Sensor

Using a PC fan with S&P's humidity sensing control is a worry free solution to fighting excess humidity and possible mold problems. The sensor easily mounts inside the fan housing utilizing 2 pre-drilled holes and a standard receptacle. With the sensor at ceiling level it detects rapid increases in moisture where steam and humidity naturally rise, and automatically turns on the fan. The humidity sensor features an automatic shut off to save worry and money. The humidity sensor is the perfect solution to "fit & forget" the bath fan, especially in high traffic bathrooms, kids' bathrooms, or households on-the-go that must leave the house without properly venting humidity. S&P's PC fan with optional Humidity Sensor helps prevent cosmetic and possible mold issues associated with excess moisture.

Features

- Detects rapid rise in humidity
- Simple plug into receptacle in fan housing
- Auto-shut off timer
- Accessible sensitivity adjustment
- Humidity is sensed at the ceiling
- Can be installed with new fan or as an add-on later if needed

Speed Control

Using a PC fan with S&P's speed control is simple solution to for intermittent and continuous ventilation. The sensor easily mounts inside the fan housing utilizing 2 pre-drilled holes and a standard receptacle.

Features

- Simple plug into receptacle in fan housing
- Accessible sensitivity adjustment
- Can be installed with new fan or as an add-on later if needed
- Allows for adjustable continuous speed for ASHRAE 62.2
- High speed override

PC with V-SWITCH - ASHRAE 62.2

VSWITCH Control

This Line Voltage Ventilation Fan Control may be used with a PC fan as another option to comply with ASHRAE 62.2 ventilation rates for residential applications. Automatic hourly run time from 10-90% to provide general ventilation. Manual 20 and 40 minute delay time off to provide intermittent (point source) exhaust.

Ratings:
0.5 Amps, 100 Watts
120 Volt, 60 Hz, Single Phase

How to Set the Run Time Requirements for ASHRAE 62.2

- Using the CFM requirement chart for ASHRAE 62.2 below determine the necessary ventilation rate.
- Divide the required ventilation air by the fan's rated air flow
- Better yet divide the required ventilation air by the tested air flow rate of the installed fan. For example, a three bedroom, 2500 square foot home requires 60 CFM of ventilation air.
- A PC110 fan is rated to provide 90 CFM. 60/90=66%.
- Set the slider switch at 66%.
- A similar calculation for Auto Cycle % can be performed to provide an alternative ventilation rate as prescribed by other applicable codes and standards.

Floor Area (ft^2)	Bedrooms				
	0-1	2-3	4-5	6-7	>7
<1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
>7500	105	120	135	150	165

Premium CHOICE Series Contractor Packs

Contractor Packs

For simple installation, PC80 and PC110 are available as 4 packs with the fan housings ready for installation first, then after the drywall and painting are complete the motor and grilles are available to finish the job. The housing kit includes the housing and hanger bars, while the finish kit includes the motor plate, motor, wheel and grille.

Contractor packs can be ordered with the PCLK Lighted Kits to make a lighted fan pack.

Pack Part #	Descripton	Optional Lighted Kit
PC80H	PC80 Contractor Pack Housings (4 pk)	-
PC80F	PC80 Contractor Pack Motor and Grille (4 pack)	PCLK (order 4)
PC110H	PC110 Contractor Pack Housings (4 pk)	-
PC110F	PC110 Contractor Pack Motor and Grille (4 pk)	PCLK (order 4)

Also Available from S&P

TD-SILENT Fans

Meet ASHRAE 62.2 when noise is an Extreme Concern!

As the name suggests these fans are extremely quiet, low profile “Mixed-flow” fans. Manufactured in plastic material with an external connection box, the body is easily dismantled with a two speed controllable 115V 60Hz motor. Sound waves are directed through the perforated inner skin and absorbed by a layer of sound-absorbent insulation. Plus the TD-SILENT is fitted with rubber gaskets on the inlet and outlet to absorb vibrations.

Air Performance

All models include a direct two speed motor connection.

Model	Duct Dia. Ins.	Nom. RPM	Volts	Max. Watts	Speed	CFM v Static Pressure (SP) Ins. WG							Max. SP	Max operating temp. (ºF)	Wgt. (lbs)
						0”	0.125”	0.25”	0.375”	0.5”	0.75”	1.0”			
TD-100XS	4”	2000	120	21	LS	108	82	48	-	-	-	-	0.4	104	11.9
	4”	2500	120	35	HS	143	121	91	59	23	-	-	0.6	104	
	5”	2000	120	21	LS	147	110	63	-	-	-	-	0.4	104	
	5”	2500	120	36	HS	203	175	138	84	33	-	-	0.6	104	
TD-150S	6”	2200	120	55	LS	239	209	181	154	120	62	-	0.95	140	13.2
	6”	2700	120	65	HS	333	315	286	271	257	178	77	1.2	140	
TD-200S	8”	2000	120	115	LS	409	367	333	306	271	183	46	1.2	140	19.2
	8”	2200	120	122	HS	530	503	472	443	415	349	204	1.2	140	

The TD-SILENT Models 100XS and 150S are California Title 24 compliant and meet ASHRAE 62.2 when installed with a CVC and other TD models are compliant when installed with a 3 way switch and remotely mounted speed control.

PV-100XPS - Clothes Dryer Boosting

The easiest to install, most economical option!

If you have a dryer with long or complicated duct runs, S&P offers the perfect solution to increase dryer efficiency: the PV100x Dryer Booster Fan. The PV-100x offers a fully enclosed motor with ***Class F insulation*** which ensures a long, trouble free life; thus making it the right choice for enhancing the performance of your clothes dryer.

S&P’s PV-100xps utilizes a compact pressure sensor and run timer enclosed within the junction box and mounted to the fan housing. The pressure sensor is also available as an accessory.

Air Performance

Model No.	Nom. RPM	Volts	Max. Watts	CFM v Static Pressure (SP) Ins. WG									Max. SP	Duct Dia. Ins.
				0”	0.125”	0.25”	0.375”	0.5”	0.75”	1.0”	1.25”	1.5”		
PV-100x	2880	115	84	153	142	130	120	111	96	80	63	34	1.85	4”

Performance certified is for installation type D-Ducted inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test.

S&P USA certifies that the PV range shown herein is 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.

S&P USA Ventilation Systems, LLC

6393 Powers Avenue
Jacksonville, FL 32217
P. 904-731-4711
F. 904-731-8322
www.spvg-northamerica.com

Soler&Palau Ventilation Group