

# Compact Wall and Duct Axial Fan Series

For Industrial and Commercial Applications

Catalog CA02-August 2006



The World's Leading Producer of  
**Air Movement Products**

**Soler & Palau (S&P) USA and Canada** are the most recent additions to, and are wholly owned subsidiaries of, Soler & Palau Ventilation Group which was founded in 1951. S&P Ventilation Group is the World's leading supplier of air movement products with an emphasis on developing and producing leading edge products to HVAC and other associated industries.

Over the past 50 years the company has expanded its product ranges and operations within Europe and beyond. Across the globe, S&P has established the most effective means through subsidiaries, distributors and partners for the distribution of our products. Today S&P has many companies, among these are: Australia, Belgium, China, England, France, Germany, Holland, Italy, Portugal, Mexico, the USA and Canada. Worldwide, S&P is represented by an established and renowned network of distributors and partner companies.

## Compact Wall and Duct Axial Fans (WA series & DA series)

The S&P COMPACT WALL and DUCT AXIAL FANS feature, as the name suggests, an extremely compact design created by the combination of an external rotor motor matched with a direct drive wrap around an impeller hub. This very low profile design optimizes airflow performance while minimizing noise generation. Both wall and duct mounted versions require an absolute minimum depth for any given wall, ceiling, panel or in-line duct mounted installation.

The S&P COMPACT WALL AXIAL FANS are designed to be installed directly into side walls, ceilings and panels in order to exhaust or supply air to the surrounding environments.

All COMPACT WALL AXIAL FANS include a one piece bell mouth inlet and mounting plate manufactured from high grade galvanized steel. The motor and fan impeller assembly are firmly supported within this mounting plate by a strong steel support frame that includes an integrated finger guard on the inlet side. All units are supplied with motors prewired to a wiring junction box located on the back of the motor hub for easy wiring access. This terminal box protects all wiring connections against the ingress of dust and moisture. The entire assembly is protected by a two stage primer and a tough corrosion and UV resistant polyester paint finish.



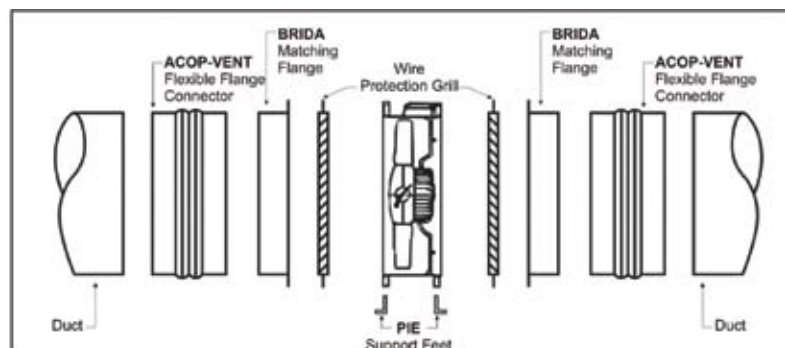
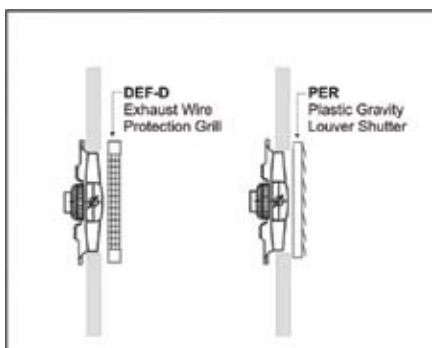
**WA - Series**

The S&P COMPACT DUCT AXIAL FANS are designed to be installed in-line with inducted or partially ducted ventilation systems for exhaust or supply air applications.

All S&P COMPACT DUCT AXIAL FANS feature cylindrical flanged casings manufactured from a high grade rolled galvanized steel plate. The motor and impeller assembly are firmly supported within the casing by a strong steel support frame. All models are supplied with a prewired junction box located on the outside of the fan casing for easy wiring access. This terminal box protects all wiring connections against the ingress of dust and moisture. The entire assembly is protected by a two stage primer and a tough corrosion and UV resistant polyester paint finish.



**DA - Series**



## Applications

The COMPACT WALL and DUCT AXIAL fans from S&P are designed for use in a wide range of residential, commercial and industrial ventilation applications. The COMPACT WALL AXIAL FANS are designed to be installed directly into sidewalls, ceilings or panels. The COMPACT DUCT AXIAL FANS are designed for installation within ducted systems where the fan is supported on both sides. A list of typical applications include the following:

### Residential

- Garages
- Lofts
- Workshops
- Basements
- Crawl Spaces

### Commercial

- Offices
- Bars & Restaurants
- Cafeterias
- Locker Rooms
- Make-Up Air Applications

### Industrial

- Warehouses
- General Office Spaces
- Equipment Cooling
- Air Transfer Applications

### Agricultural & Greenhouse

- Poultry Sheds
- Greenhouses
- Any other applications where the exhaust of moisture laden air is required

• OEM – In addition to many traditional HVAC ventilation applications the COMPACT AXIAL FAN series can also be incorporated into the design of OEM machinery and equipment to provide ventilation or cooling in applications such as Air Conditioning Condensers, Roof Extract Fans, Portable Cooling Appliances... and many more. Special versions of the COMPACT AXIAL FANS are available depending upon the application.

**Please contact your local sales representative.**

## Technical Specifications

### Warranty

**Five (5) year limited warranty.**

### Motor

- All models include asynchronous induction capacitor run and start motors.
- Constructed from die cast aluminum and finished in a black polyester paint coating.
- 100% Speed controllable.
- Totally enclosed IP/65 protection.
- Class F insulation.
- Suitable working temperatures -40°C (-40°F) up to 60°C (140°F).
- All models include a Safety Auto Reset Thermal Overload Protection.

### Terminal Box

- Manufactured from high impact grade aluminum.
- IP65 protected.

### Wheel / Impeller

- Manufactured from glass filled UV resistant polyamide.
- Special Order: Die cast aluminum. Please inquire.
- Corrosion and weather resistant.

**\*Technical Specifications:** Example (see following page)

HCGB/	4-16/	G-A
↓ ↓ ↓	↓ ↓	↓ ↓
1 2 3	4 5	6 7

1-HC: COMPACT WALL AXIAL FAN reference.

TC: COMPACT DUCT AXIAL FAN reference.

2-G: Plastic adjustable impeller (supplied as standard).

B: Aluminum adjustable impeller (please inquire).

3-B: Single Phase Motor. 120 V 60 Hz.

T: Three Phase Motor. 220/460 V 60 Hz (please inquire).

5-16: Speed. Number of poles.

6-A: Nominal blade diameter in inches.

Air direction.

Form A = air over motor-impeller.

Form B = air over-impeller motor.

## Accessories

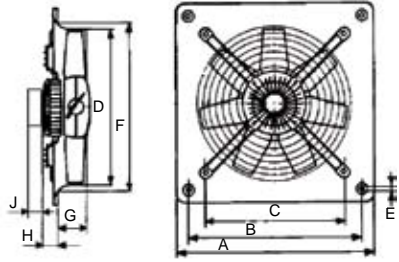
A wide range of accessories is available to complete the most demanding installation.

## Code Approval

All models have been independently safety tested by Underwriters Laboratories, Inc and are UL and cUL Listed.

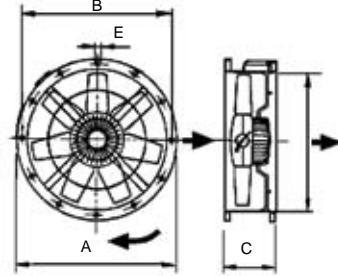
## Dimensions in inches/mm

### Wall Axial (WA)



Model	A	B	C	D	E	F	G	H	J	Weight lbs(kgs)
WA 12	15 <sup>3/4</sup> 400	12 <sup>15/16</sup> 330	11 280	12 <sup>7/16</sup> 315	3/8 10	12 <sup>15/16</sup> 329	2 <sup>7/8</sup> 73	1 <sup>1/4</sup> 32	2 <sup>1/2</sup> 64	15 7
WA 16	19 <sup>11/16</sup> 500	16 <sup>5/8</sup> 420	13 <sup>15/16</sup> 355	15 <sup>3/4</sup> 400	3/8 10	16 <sup>5/8</sup> 422	3 <sup>1/16</sup> 78	1 <sup>5/8</sup> 41	2 <sup>1/2</sup> 64	20 9
WA 18	22 <sup>1/16</sup> 560	18 <sup>3/4</sup> 480	15 <sup>3/4</sup> 400	17 <sup>3/4</sup> 450	3/8 10	18 <sup>3/4</sup> 476	3 <sup>3/4</sup> 95	1 <sup>5/8</sup> 41	2 <sup>1/2</sup> 64	29 13
WA 20	24 <sup>13/16</sup> 630	21 <sup>1/8</sup> 537	17 <sup>3/4</sup> 450	19 <sup>11/16</sup> 500	3/8 10	21 <sup>1/8</sup> 536	3 <sup>7/8</sup> 98	1 <sup>3/4</sup> 44	2 <sup>1/2</sup> 64	34 15

### Duct Axial (DA)



Model	A	B	C	D	E	Weight (lbs)
DA 12	15 <sup>3/16</sup> 386	14 356	6 <sup>11/16</sup> 170	12 <sup>7/16</sup> 316	3/8 10	22
DA 16	19 <sup>3/16</sup> 487	17 <sup>3/4</sup> 451	6 <sup>11/16</sup> 170	15 <sup>3/4</sup> 400	1/2 13	31
DA 18	21 <sup>1/8</sup> 537	19 <sup>11/16</sup> 500	7 <sup>1/8</sup> 181	17 <sup>3/4</sup> 451	1/2 13	40
DA 20	23 <sup>7/16</sup> 595	22 <sup>1/16</sup> 560	7 <sup>1/8</sup> 181	19 <sup>11/16</sup> 500	1/2 13	49

Soler & Palau USA certifies that the WALL and DUCT AXIAL FANS 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 to the AMCA Certified Ratings Program.



Performance is shown for Soler & Palau USA WALL & DUCT AXIAL FANS. Speed (rpm) shown is nominal. Performance is based on actual speed of the test. Performance ratings include the effects of finger guards in the airstream. The sound ratings are loudness values in fan sones at 5ft (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values are shown are for installation type A: free inlet, free outlet.



## Air & Sound Performance

Model	*Technical Specification	Input Watts	Peak BHP	RPM	CFM v Static Pressure (SP) Ins. WG									Sones	
					0	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4		0.5
WA 12	HCGB/4-12/G-A	132	-	1500	1260	1200	1130	1040	900	-	-	-	-	-	9.9
WA 16	HCGB/4-16/G-A	310	0.26	1500	2430	2350	2260	2160	2050	1840	1500	-	-	-	18.9
WA 18	HCGB/4-18/G-A	550	0.50	1465	3690	3600	3510	3410	3330	3240	3140	3020	2900	2500	19.7
WA 20	HCGB/4-20/G-A	750	0.65	1500	4520	4440	4340	4220	4100	3990	3870	3740	3600	3160	28

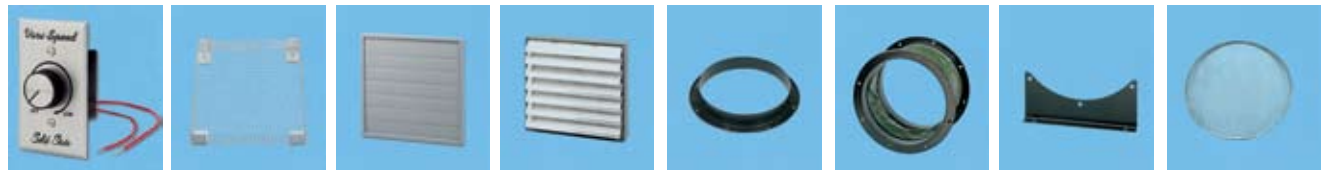
Model	*Technical Specification	Input Watts	Peak BHP	RPM	CFM v Static Pressure (SP) Ins. WG									Sones	
					0	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4		0.5
DA 12	TCGB/4-12/G-B	132	-	1500	1216	1130	940	570	-	-	-	-	-	-	11.6
DA 16	TCGB/4-16/G-B	320	0.28	1500	2540	2440	2330	2200	2030	1760	-	-	-	-	17.6
DA 18	TCGB/4-18/G-B	540	0.48	1465	3620	3510	3370	3260	3140	3000	2800	-	-	-	24
DA 20	TCGB/4-20/G-B	770	0.67	1500	4750	4630	4500	4380	4240	3090	3930	3660	-	-	32

Performance certified is for installation type A: free inlet, free outlet.

## Accessories

The SC 15 is used for both models. The DEF-D, PER & PER-CN are exclusively used with the Wall Axial Fan.

The BRIDA, ACOP, PIE and DEF-T are exclusively used with the Duct Axial Fan.



SC 15  
Variable speed control

DEF-D  
Wire protection guard

PER  
Plastic gravity louver shutter

PER-CN  
Aluminum louver back draft shutter

BRIDA  
Round duct matching flange

ACOP  
Round flexible flanged connectors

PIE  
Support Feet

DEF-T  
Inlet/outlet wire protection guard



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