



# COMPACT Axial Fan Series



**Professional WALL and DUCT Axial Fan Series.**  
Leading Edge ventilation technology from Soler & Palau, Inc.

# PROFESSIONAL WALL & DUCT AXIAL FANS



## ■ COMPACT WALL and DUCT AXIAL FANS (HCGB and TCGB)

The S&P COMPACT WALL and DUCT AXIAL FANS feature, as the name suggests, an extremely compact design created by the combination of an internal rotor motor mated with a direct drive wrap around 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 sidewalls, ceilings and panels and 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.

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

All S&P COMPACT DUCT AXIAL FANS feature cylindrical flanged casings manufactured from high grade rolled galvanized steel plate. The motor and impeller assembly is firmly supported within the casing by a strong steel support frame. All models are supplied with a prewired wiring 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.

## ■ 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 – Garage; Loft; Workshop;

Basement and Crawl Space ventilation...

• COMMERCIAL – Offices; Bars, Cafes, Cafeterias and Restaurant ventilation; or Make-Up Air...

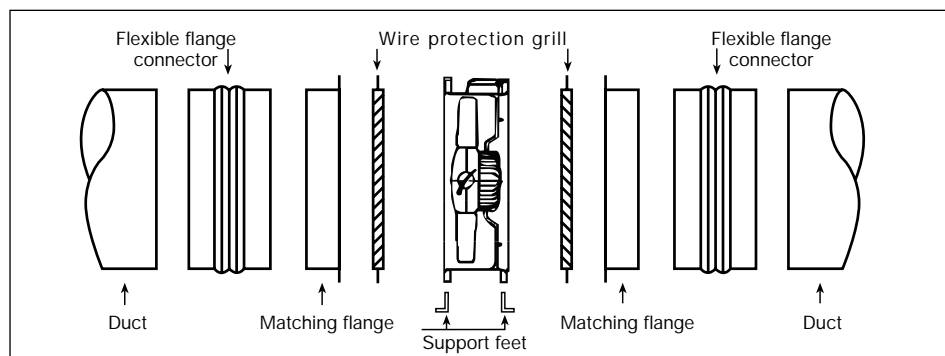
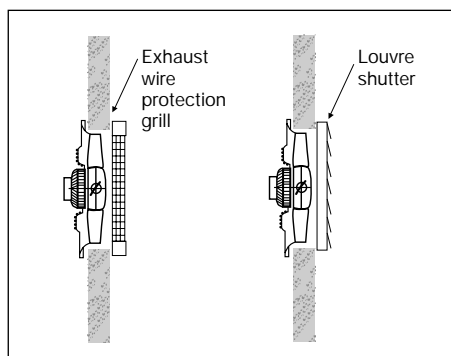
• INDUSTRIAL – General ventilation of factory spaces; Warehouse ventilation, Equipment and Machinery cooling; Air transfer applications...

• AGRICULTURAL and GREENHOUSE – Poultry shed ventilation; Greenhouse ventilation and any other applications where the exhaust of moisture laden air is required.

• OEM – In addition to many traditional HVAC ventilation applications the COMPACT AXIAL FANS 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.

## ■ COMPACT WALL AXIAL FAN. COMPACT DUCT AXIAL FAN



# PROFESSIONAL WALL & DUCT AXIAL FANS



## ■ Technical Specification Data

Product Reference: Example

### 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: Aluminium adjustable impeller (please enquire).
- 3 - B: Single Phase Motor. 120 V 60 Hz.
- T: Three Phase Motor. 220/460 V 60 Hz (please enquire).
- 4 - 4: Speed. Number of poles.
- 5 - 16: Nominal blade diameter in inches.
- 6 - G: Blade angle (G for 60 Hz).
- 7 - A: Air direction. Form A = air over motor-impeller.  
Form B = air over impeller-motor.

### Motors

- All models include asynchronous induction capacitor run and start motors.
- Constructed from die cast aluminium 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 Thermal Overload Protection.

### Impellers

- Manufactured from glass filled UV resistant polyamide.
- Corrosion and weatherproof resistant.
- Special Order: Die cast aluminium. Please enquire.

### Terminal Box

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



Soler & Palau certifies that the COMPACT 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.

## ■ COMPACT WALL AXIAL FANS – Air and Sound Performance Data.

### LICENSED PERFORMANCE. Cfm @ inches WG. (4 Pole Single Phase Motors)

| MODEL         | Input Watts | Peak BHP | rpm  | 0    | 0.05 | 0.1  | 0.15 | 0.2  | 0.25 | 0.3  | 0.35 | 0.4  | 0.5  | Sones |
|---------------|-------------|----------|------|------|------|------|------|------|------|------|------|------|------|-------|
| HCGB/4-12/G-A | 132         | -        | 1500 | 1260 | 1200 | 1130 | 1040 | 900  | -    | -    | -    | -    | -    | 9.9   |
| HCGB/4-16/G-A | 310         | 0.26     | 1500 | 2430 | 2350 | 2260 | 2160 | 2050 | 1840 | 1500 | -    | -    | -    | 18.9  |
| HCGB/4-18/G-A | 550         | 0.50     | 1465 | 3690 | 3600 | 3510 | 3410 | 3330 | 3240 | 3140 | 3020 | 2900 | 2500 | 19.7  |
| HCGB/4-20/G-A | 750         | 0.65     | 1500 | 4520 | 4440 | 4340 | 4220 | 4100 | 3990 | 3870 | 3740 | 3600 | 3160 | 28    |

Performance is shown for Soler & Palau COMPACT WALL 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. Performance shown is for installation type A: Free inlet, Free outlet. 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 fan sone levels.

## ■ COMPACT DUCT AXIAL FANS – Air and Sound Performance Data.

### LICENSED PERFORMANCE. Cfm @ inches WG. (4 Pole Single Phase Motors)

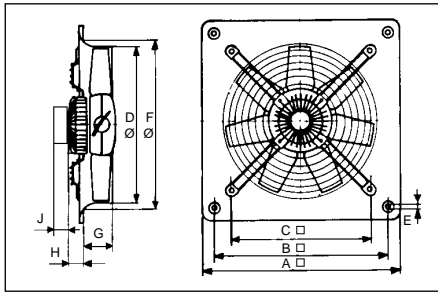
| MODEL         | Input Watts | Peak BHP | rpm  | 0    | 0.05 | 0.1  | 0.15 | 0.2  | 0.25 | 0.3  | 0.35 | 0.4 | 0.5 | Sones |
|---------------|-------------|----------|------|------|------|------|------|------|------|------|------|-----|-----|-------|
| TCGB/4-12/G-B | 132         | -        | 1500 | 1216 | 1130 | 940  | 570  | -    | -    | -    | -    | -   | -   | 11.6  |
| TCGB/4-16/G-B | 320         | 0.28     | 1500 | 2540 | 2440 | 2330 | 2200 | 2030 | 1760 | -    | -    | -   | -   | 17.6  |
| TCGB/4-18/G-B | 540         | 0.48     | 1465 | 3620 | 3510 | 3370 | 3260 | 3140 | 3000 | 2800 | -    | -   | -   | 24    |
| TCGB/4-20/G-B | 770         | 0.67     | 1500 | 4750 | 4630 | 4500 | 4380 | 4240 | 3090 | 3930 | 3660 | -   | -   | 32    |

Performance is shown for Soler & Palau COMPACT DUCT AXIAL FANS. Speed (rpm) shown is nominal. Performance is based on actual speed of the test. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type A: Free inlet, Free outlet. 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 fan sone levels.

# PROFESSIONAL WALL & DUCT AXIAL FANS



## ■ Dimensions - COMPACT Wall Axial Fan



| Model         | A                                | B                                | C                                | D                                | E   | F                                | G                              | H                             | J                             | Weight lbs |
|---------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----|----------------------------------|--------------------------------|-------------------------------|-------------------------------|------------|
| HCGB/4-12/G-A | 15 <sup>3</sup> / <sub>4</sub>   | 12 <sup>15</sup> / <sub>16</sub> | 11                               | 12 <sup>7</sup> / <sub>16</sub>  | 3/8 | 12 <sup>15</sup> / <sub>16</sub> | 2 <sup>7</sup> / <sub>8</sub>  | 5/8                           | 2 <sup>1</sup> / <sub>2</sub> | 15.0       |
| HCGB/4-16/G-A | 19 <sup>11</sup> / <sub>16</sub> | 16 <sup>5</sup> / <sub>8</sub>   | 13 <sup>15</sup> / <sub>16</sub> | 15 <sup>3</sup> / <sub>4</sub>   | 3/8 | 16 <sup>5</sup> / <sub>8</sub>   | 3 <sup>1</sup> / <sub>16</sub> | 1 <sup>5</sup> / <sub>8</sub> | 2 <sup>1</sup> / <sub>2</sub> | 20.0       |
| HCGB/4-18/G-A | 22 <sup>1</sup> / <sub>16</sub>  | 18 <sup>3</sup> / <sub>4</sub>   | 15 <sup>3</sup> / <sub>4</sub>   | 17 <sup>3</sup> / <sub>4</sub>   | 3/8 | 18 <sup>3</sup> / <sub>4</sub>   | 3 <sup>3</sup> / <sub>4</sub>  | 1 <sup>5</sup> / <sub>8</sub> | 2 <sup>1</sup> / <sub>2</sub> | 29.0       |
| HCGB/4-20/G-A | 24 <sup>13</sup> / <sub>16</sub> | 21 <sup>1</sup> / <sub>8</sub>   | 17 <sup>3</sup> / <sub>4</sub>   | 19 <sup>11</sup> / <sub>16</sub> | 3/8 | 21 <sup>1</sup> / <sub>8</sub>   | 3 <sup>7</sup> / <sub>8</sub>  | 1 <sup>3</sup> / <sub>4</sub> | 2 <sup>1</sup> / <sub>2</sub> | 34.0       |

All dimensions in inches.

## ■ Accessories - COMPACT Wall Axial Fan



**COMPACT WALL AXIAL FAN**  
Stock Ref.

**EXHAUST SIDE PROTECTION GRILL**  
Stock Ref.

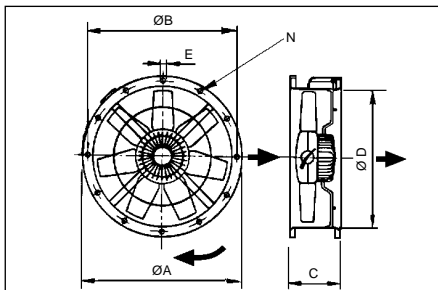
**PLASTIC GRAVITY LOUVRE SHUTTER**  
Stock Ref.

**ALUMINUM GRAVITY LOUVRE SHUTTER**  
Stock Ref.

**ELECTRONIC SPEED CONTROLLER**  
Stock Ref.

|               |          |          |           |           |
|---------------|----------|----------|-----------|-----------|
| HCGB/4-12/G-A | DEF-325D | PER-355W | PER-355CN | SP-REG 6  |
| HCGB/4-16/G-A | DEF-375D | PER-400W | PER-400CN | SP-REG 6  |
| HCGB/4-18/G-A | DEF-450D | PER-450W | PER-450CN | SP-REG 10 |
| HCGB/4-20/G-A | DEF-525D | PER-500W | PER-500CN | SP-REG 10 |

## ■ Dimensions - COMPACT Duct Axial Fan



| Model         | A                               | B                                | C                               | D                                | E   | Weight lbs |
|---------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|-----|------------|
| TCGB/4-12/G-B | 15 <sup>3</sup> / <sub>16</sub> | 14                               | 6 <sup>11</sup> / <sub>16</sub> | 12 <sup>7</sup> / <sub>16</sub>  | 3/8 | 22         |
| TCGB/4-16/G-B | 19 <sup>3</sup> / <sub>16</sub> | 17 <sup>3</sup> / <sub>4</sub>   | 6 <sup>11</sup> / <sub>16</sub> | 15 <sup>3</sup> / <sub>4</sub>   | 1/2 | 31         |
| TCGB/4-18/G-B | 21 <sup>1</sup> / <sub>8</sub>  | 19 <sup>11</sup> / <sub>16</sub> | 7 <sup>1</sup> / <sub>8</sub>   | 17 <sup>3</sup> / <sub>4</sub>   | 1/2 | 40         |
| TCGB/4-20/G-B | 23 <sup>7</sup> / <sub>16</sub> | 22 <sup>1</sup> / <sub>16</sub>  | 7 <sup>1</sup> / <sub>8</sub>   | 19 <sup>11</sup> / <sub>16</sub> | 1/2 | 49         |

All dimensions in inches.

## ■ Accessories - COMPACT Duct Axial Fan



**COMPACT DUCT AXIAL FAN**  
Stock Ref.

**MATCHING FLANGE**  
Stock Ref.

**FLEXIBLE FLANGE CONNECTOR**  
Stock Ref.

**SUPPORT FEET**  
Stock Ref.

**WIRE PROTECTION GRILLES**  
Stock Ref.

**ELECTRONIC SPEED CONTROLLER**  
Stock Ref.

|               |           |          |         |          |           |
|---------------|-----------|----------|---------|----------|-----------|
| TCGB/4-12/G-B | BRIDA-315 | ACOP-315 | PIE-315 | DEF-315T | SP-REG 6  |
| TCGB/4-16/G-B | BRIDA-400 | ACOP-400 | PIE-400 | DEF-400T | SP-REG 6  |
| TCGB/4-18/G-B | BRIDA-450 | ACOP-450 | PIE-450 | DEF-450T | SP-REG 10 |
| TCGB/4-20/G-B | BRIDA-500 | ACOP-500 | PIE-500 | DEF-500T | SP-REG 10 |

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