

# SWP

Axial Fans

**PRODUCT GUIDE**



PENNBARRY™

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# INTRODUCTION

## SWP Series Wall Mounted Propeller Fans

The SWP propeller fan line addresses the need for wall mounted exhaust and ventilation. Potential application sites include garages, factories, warehouses, and other relatively clean air applications.

All propellers in the SWP product line are statically and dynamically balanced to AMCA Standard 204-96, Balance Quality and Vibration Levels for Fans, to ensure quiet and reliable operation.

All fans are fully assembled and factory tested prior to shipping; belt drive models are pre-set to the specified RPM.



# CERTIFICATIONS & LISTINGS



## SWP Direct Drive Fans

PennBarry certifies that the SWP 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.



## cULus Certification

SWP fans carry the UL label, UL705, (ZACT/ZACT7), file #E28413

# FEATURES & BENEFITS

## SWP Direct Drive Series

- Static pressure up to 1.00 in. wg.
- Flow capacity up to 4500 CFM
- Exhaust or supply in light-duty applications
- Stamped aluminum propeller with steel hub, zinc-coated wire guard/power assembly mounted on RIS vibration isolators attached to a powder coated steel venturi panel
- Size range from 8" and 20"

## Motor Availability

The Gplus™ (GP) feature utilizes EC motors to provide significantly greater efficiency, flexibility, and controllability over standard direct drive permanent split capacitor (PSC) motors. Using the included PWM controller, the Gplus motors can be turned down to as low as 80% the max operating speed while maintaining 90% efficiency through the operating range. Additionally, the Gplus can accept a PWM input to tie to building management systems, allowing for savings in not only direct fan energy consumption but reducing the exhaust of conditioned air during off peak hours as well. All Gplus motors come in open or TE enclosures for usage with 115V-208V/230V, 277V, single phase, and 50/60 Hz.

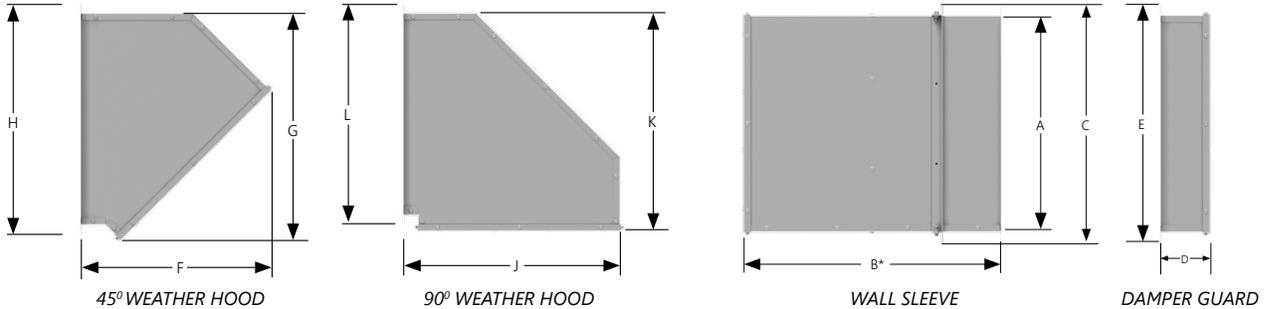


# OPTIONS & ACCESSORIES

## Firestat

Firestat switches automatically disconnect the unit when the temperature of the air being exhausted exceeds a preset rating.

## Accessory Information



Size	A	B	C	D	E	F	G	H	J	K	L
8	13.25	24.55	15.25	5.55	15.25	13.46	14.76	15.25	15.48	15.10	15.25
10	15.25	25.43	17.25	6.54	17.25	15.08	16.98	17.25	17.61	17.10	17.25
12	18.25	25.43	20.25	5.30	20.25	16.58	19.35	20.25	20.48	20.10	20.25
14	20.25	26.42	22.25	6.55	22.25	18.20	21.56	22.25	22.61	22.09	22.25
16	22.25	26.55	24.25	5.05	24.25	20.08	24.02	24.25	24.11	24.09	24.25
18	24.25	28.80	26.25	5.05	26.25	22.20	26.73	26.25	26.61	26.09	26.25
20	26.25	28.80	28.25	6.55	28.25	23.70	28.82	28.25	28.86	28.09	28.25

\*If motorized damper is selected dim B will increase by 6 inches, All dimensions are in inches.

## Weather Hood

Weather hoods are designed to divert rain and snow from exhaust and supply wall openings. They are designed to be surface mounted and can be installed in conjunction with wall dampers. Weather Hoods are available at 45 and 90 degrees, and all guards are provided standard with all shields. Construction is galvanized steel and can be painted upon request. Weather hoods will be shipped factory assembled.

Use the tables above to help with space planning and sizing guidelines. Please, note the maximum recommended intake (supply) CFM. This guideline will keep the intake CFM below 500 FPM. If the intake CFM exceeds the recommended volume, use the next larger fan.

Caution: When a SWP fan is selected for a supply application, fan velocities greater than 500 FPM can pull water into the structure. We suggest that a PennBarry weather hood be selected in supply applications to help prevent water penetration when high velocity conditions cannot be avoided.

## Wall Sleeve

The wall sleeve is optional for exhaust configurations but is required to install fans in a supply configuration. Construction is galvanized steel with mounting holes of either supply or exhaust configurations and can be painted upon request. All wall sleeves include guards that meet OSHA requirements.

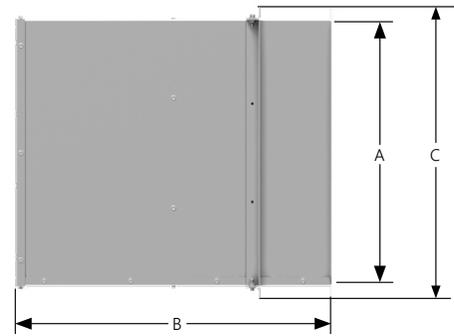
## Damper Guard

The damper guard assembly includes a sheet metal sleeve with an attached guard. The damper guard is surface mounted and long enough to enclose a wall damper, if provided. It is removable for maintenance. The guard conforms to OSHA specifications. Protection that conforms to OSHA regulations should be installed when fans are located within seven (7) feet of floor and/or working level, or within reach of personnel. Review OSHA codes for specific details.

# OPTIONS & ACCESSORIES

Size	A	B	C
8	13.25	24.55	15.25
10	15.25	25.43	17.25
12	18.25	25.43	20.25
14	20.25	26.42	22.25
16	22.25	26.55	24.25
18	24.25	28.80	26.25
20	26.25	28.80	28.25

All dimensions are in inches



## Slip in Fan Pack

The Slip in Fan Pack provides a ventilation package in one convenient and compact assembly. The Fan Pak incorporates the SWP direct drive fans with their integral rear wire guards installed in a galvanized steel sleeve with a self-acting damper on the exterior face. (A motorized damper can be substituted for the standard damper when desired.)

A moveable angle frame is positioned on the perimeter of the sleeve. This adjusts to the wall thickness. When properly fastened, it secures the assembly in the wall opening. Anchor bolts, lag screws or other appropriate fasteners should be used to fasten the unit to the inside and outside face of the wall or mounting frame.

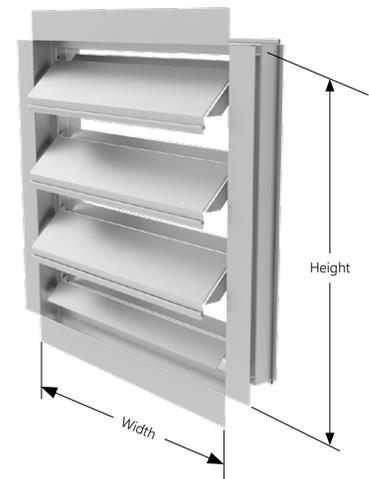
## Dampers

Gravity dampers, which are the most popular form of back draft protection, open when the fan starts and automatically shut when the fan stops. These dampers are used for exhaust only and are enclosed within an extruded aluminum frame that protects the aluminum blades. Each blade pivots freely on synthetic bearings. Blades have vinyl blade seals and are interconnected with tie-rods for simultaneous operation.

The motorized damper is made from galvanized steel construction and includes extruded vinyl seal, mechanically locked, and comes with an enclosed motorized actuator. The actuator is field wired in parallel with the fan. Actuator voltage will be matched to your selected fan motor voltage. Allow a minimum 7" between the fan and the damper when motorized.

Dampers required for supply applications are provided as motorized top-pivot type. Motorized center-pivot type dampers are available. If a standard top-pivot damper is used for supply applications, a field supplied time delay relay is strongly recommended.

Caution: When an SWP fan is selected for a supply application, fan velocities greater than 500 FPM can pull water into the structure. We suggest that a PennBarry Weather Hood be selected in supply applications to help prevent water penetration when high velocity conditions cannot be avoided.



## Safety Service Switch

Safety service switches are available to allow positive electrical shut-off and safety. Switches are shipped loose for field mounting. (Factory wiring of explosion proof applications is not available.) A wide range of NEMA rated enclosures with service switches are available for indoor, outdoor, and explosion proof installations. Service switches are to be field wired by a licensed electrician.



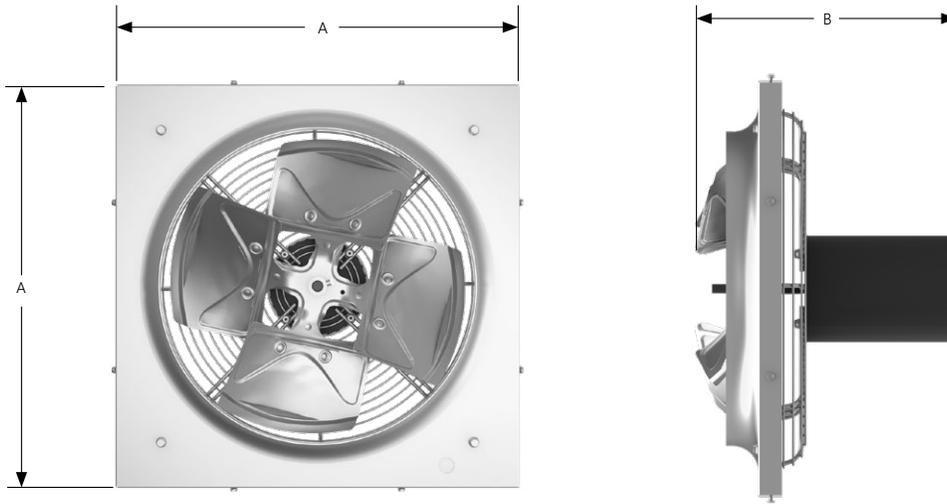
## Transformers

To meet local requirements, 277V transformers are available for all direct drive units. The transformers are stepdown and will step the voltage down to 115V. Shipped loose for field installation.

## Finishes

Coatings, such as Polyester Powder Coat, Epoxy Powder Coat, Phenolic Epoxy Powder Coat, and others are available. See the coatings brochure for details.

# DIMENSIONS



Size	DIM A	DIM B	Wall Opening	Est. Ship Weight (Lbs.)	Panel Gauge
08	13.0	11.06	13.5	16	18
10	15.0	11.13	15.5	18	18
12	18.0	11.75	18.5	19	18
14	20.0	13.88	20.5	24	18
16	22.0	14.68	22.5	26	18
18	24.0	14.13	24.5	29	18
20	26.0	13.94	26.5	30	18

*All dimensions are in inches*

# SWP SERIES FAN SELECTIONS

## Model

SWP = Direct Drive Small Wall Prop

## Construction

<b>Application</b> E = Exhaust/ relief S = Supply/ intake  Application Flow (CFM) <enter value>  Application Static Pressure (inwc) <enter value>	<b>Altitude</b> <enter value>  <b>Drive Type</b> D = Direct  <b>Fan RPM</b> <####>	<b>Tag</b> <enter value>  <b>Unit Size</b> 08, 10, 12, 14, 16, 18, 20
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## Motor

<b>Efficiency</b> G = Gplus™ (ECM)  <b>Horsepower</b> 0.167 = 1/6 0.250 = 1/4 0.333 = 1/3 0.500 = 1/2 0.750 = 3/4	<b>Motor Enclosure</b> 1 = TE w/Overload 3 = ODP w/Overload	<b>Voltage/Phase/Cycle</b> B = 110V/1PH/50HZ C = 115V/1PH/60HZ D = 120V/1PH/60HZ F = 208V/ 1PH/60HZ H = 220V/1PH/50HZ K = 230V/1PH/60HZ M = 240V/1PH/50HZ P = 277V/1PH/60HZ
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## Electrical Accessories

<b>Service Switches and ITW</b> 0 = None A = NEMA 1 - loose D = NEMA 3R - loose G = NEMA 4 - loose X = Special	<b>Switches / Sensors</b> 0 = None F = Firestat switch	<b>Transformer</b> 0 = None B = 277Vx115V X = Special
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# SWP SERIES FAN SELECTIONS

## Options and Accessories

### Construction Accessories

- 0 = None
- P = Fan Pack
- Y = Wall mounting sleeve (assembled)

### Damper

- AN = Aluminum parallel damper
- B1 = Steel parallel blade damper motorized 115V
- B2 = Steel parallel blade damper motorized 230V
- D1 = Steel opposed blade damper motorized 115V
- D2 = Steel opposed blade damper motorized 230V

### Paint/Coating

- 0 = None
  - 1 = Fan & Acc - epoxy powder coat (light gray)
  - 2 = Fan & Acc - epoxy powder coat w/ UV (gray)
  - 3 = Fan & Acc - Phenolic epoxy powder coat (gray)
  - 4 = Fan & Acc - Phenolic epoxy powder coat w/ UV (gray)
  - 5 = Fan & Acc - polyester powder coat\*
  - F = Epoxy powder coat (light gray)
  - G = Epoxy powder coat w/ UV (gray)
  - K = Phenolic epoxy powder coat (gray)
  - L = Phenolic epoxy powder coat w/ UV (gray)
  - N = Polyester powder coat\*
  - X = Special
- \*Colors only available in Polyester Powder Coat
- \*\*\*Selections F, G, K, L, N are applicable to fan only"

### Weather Hood / Damper Guard

- 0 = None
- C = SWP Weather Hood 45 deg w/ front guard (assembled)
- D = SWP Weather Hood 90 deg w/ front guard (assembled)
- E = SWP Damper guard w/ front guard (assembled)

# PENNBARRY PRODUCT SOLUTIONS

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## Commercial

- Roof & wall exhaust centrifugal fans
- Ceiling, wall, & inline centrifugal fans
- Roof supply centrifugal fans
- Square & round centrifugal fans
- Wall mounted axial fans
- Hooded roof axial fans
- Upblast roof axial fans
- Gravity ventilators
- Roof curbs



## Industrial

- Freestanding centrifugal fans
- Industrial & material handling fans
- Tubular centrifugal inline fans
- Mixed flow centrifugal fans
- Plug & plenum fans
- Wall mounted propeller fans
- Tube axial fans
- Vane axial fans
- Bifurcator fans
- Lab exhaust



## Kitchen ventilation

- Make-up air units
- Exhaust fans



## Energy recovery

- Outdoor units
- Indoor units

PennBarry is proud to be your preferred manufacturer of commercial and industrial fans and blowers. Learn how PennBarry can assist you in your next application by contacting your PennBarry Representative or visiting us on the web at [www.pennbarry.com](http://www.pennbarry.com)

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