



**Bulletin GRV09**



## **GRAVITY VENTILATORS**

Model: PT, PA, HPA

- › Turbine
- › Pul-Air
- › Insul-Air

*MOVING YOUR WAY*

# Introduction & Dimensional Information

## Gravity Ventilators

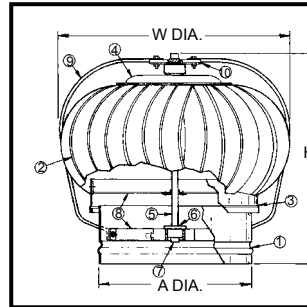


Gravity Ventilators

### PT, PA, & HPA Dimensional Data

#### > Turbine Introduction (PT)

PennBarry Turbines are ideal for the general ventilation of factories, farm and agricultural buildings, commercial and public structures and homes. Turbines move out hot, stagnant air automatically. They also work well in preventing condensation in buildings. Sensitive, ball bearing action enables the slightest motion of air to move the rotor head, and maintain suction even at low wind velocity. Centrifugal force, caused by the freely revolving head, creates a partial vacuum. Foul air rushes to fill the vacuum and is expelled. Turbines are available in galvanized steel, aluminum, stainless steel, or copper construction.



- > Legend**
1. Swaged And Reinforced Airshaft
  2. Roll Formed, Ridged Rotor Blades
  3. Rolled and Welded Rotor Collar
  4. Seamless Rotor Crown Plate
  5. Machined Rotor Shaft
  6. Prelubricated Ball Bearing Assembly
  7. Lubricant Reservoir and Cover
  8. Internal Support Braces
  9. Exterior Heavy Duty Support Braces
  10. Die Formed Brace, Bearing Plate

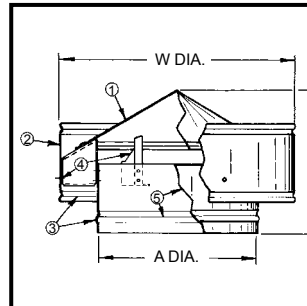
#### > Turbine Dimensional Reference

| Size   | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 12  | 14     | 15  | 16     | 18   | 20     | 24     |
|--|--------|--------|--------|--------|--------|--------|--------|-----|--------|-----|--------|------|--------|--------|
| A (Dia. Throat Size)                           | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 12  | 14     | 15  | 16     | 18   | 20     | 24     |
| W (Dia.)                                       | 10 1/4 | 12 3/4 | 12 3/4 | 14 1/4 | 14 1/4 | 16 1/2 | 16 1/4 | 19  | 22 3/4 | 25  | 25 1/2 | 29   | 31 5/8 | 35 3/4 |
| H (Height)                                     | 12     | 14 1/4 | 14 1/2 | 15     | 15     | 16 1/4 | 16 1/4 | 17  | 19 3/4 | 21  | 21 3/4 | 24   | 25 1/4 | 28 1/4 |
| EC (4 MPH Wind)*                               | 126    | 136    | 147    | 210    | 255    | 357    | 425    | 631 | 700    | 850 | 950    | 1200 | 1700   | 2350   |
| Exterior Braces Qty<br>(A = Alum.) (S = Steel) | 3A     | 3A     | 3A     | 3A     | 3A     | 3A     | 3A     | 3A  | 3A     | 3A  | 3A     | 4S   | 4S     | 4S     |

All dimensions in inches. \*EC: Exhaust Capacity In CFM

#### > Pul-Air Introduction (PA)

The Pul-Air is a simple device. Its design permits an easy outward flow of air. There are no internal obstructions or moving parts to require maintenance. Durable galvanized steel or aluminum construction incorporates heavy swedges to stiffen the airshaft and windband where required. Pul-Air ventilators are an economical choice where gravity or relief ventilation is required on industrial or commercial buildings. The Pul-Air is available in galvanized steel, aluminum, stainless steel, or copper construction.



- > Legend**
1. Conical Cap
  2. Windband
  3. Stiffening Swedges
  4. Supporting Webs
  5. Swaged Airshaft

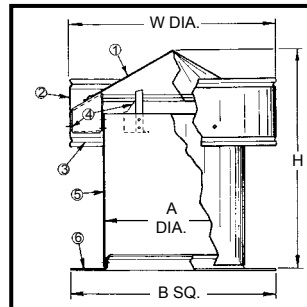
#### > Pul-Air Dimensional Reference

| Size                 | 4     | 5     | 6      | 7      | 8      | 9      | 10     | 12     | 14  | 15     | 16     | 18     | 20     | 24     | 30     |
|----------------------|-------|-------|--------|--------|--------|--------|--------|--------|-----|--------|--------|--------|--------|--------|--------|
| A (Dia. Throat Size) | 4     | 5     | 6      | 7      | 8      | 9      | 10     | 12     | 14  | 15     | 16     | 18     | 20     | 24     | 30     |
| W (Dia.)             | 8 1/4 | 9 1/4 | 10 1/4 | 11 1/4 | 12 1/4 | 14 3/4 | 15 3/4 | 17 3/4 | 22  | 23     | 24     | 25 3/8 | 27 1/2 | 31 1/2 | 41 1/4 |
| H (Height)           | 7 1/4 | 7 1/2 | 8 1/4  | 8 1/2  | 8 3/4  | 9 3/4  | 10 1/2 | 10 1/2 | 12  | 12 1/4 | 12 3/8 | 14 1/2 | 15 1/2 | 18 5/8 | 23 1/2 |
| EC (4 MPH Wind)*     | 40    | 45    | 50     | 60     | 75     | 100    | 120    | 170    | 280 | 325    | 375    | 450    | 580    | 750    | 1100   |

All dimensions in inches. \*EC: Exhaust Capacity In CFM

#### > Insul-Air Introduction (HPA)

Where an extended airshaft is necessary, to clear the peak of a roof for example, the Insul-Air is the ideal choice. It features all the sturdy construction-details of the Pul-Air plus an extended airshaft and an integral flat mounting base. The Insul-Air is available in galvanized steel, aluminum, stainless steel, or copper construction.



- > Legend**
1. Conical Cap
  2. Windband
  3. Stiffening Swedges
  4. Supporting Webs
  5. Extended Airshaft
  6. Flat Roof Mounting Base

#### > Insul-Air Dimensional Reference

| Size                 | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 12     |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| A (Dia. Throat Size) | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 12     |
| W (Dia.)             | 8 1/4  | 9 1/4  | 10 1/4 | 11 1/4 | 12 1/4 | 14 3/4 | 15 3/4 | 17 3/4 |
| H (Height)           | 14 1/4 | 15 1/8 | 15 5/8 | 15 5/8 | 15 7/8 | 17 3/4 | 18     | 18 1/4 |
| B (Sq.)              | 8      | 9      | 10     | 11     | 12     | 13     | 14     | 15 1/2 |
| EC (4 MPH Wind)*     | 40     | 45     | 50     | 60     | 75     | 100    | 120    | 170    |

All dimensions in inches. \*EC: Exhaust Capacity In CFM

Gravity Ventilators

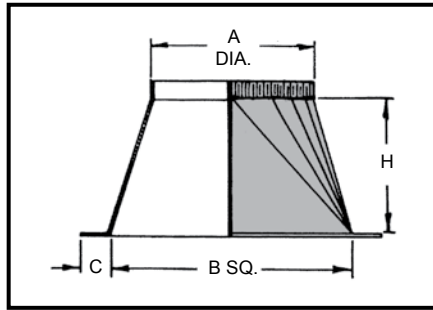
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## Base Dimensional Data & Accessories

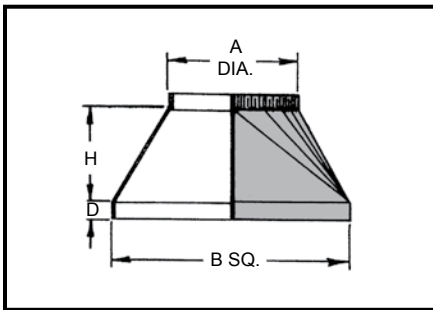
### › Bases

Mounting bases provide a solid, weatherproof seat for easy installation of ventilators on any style roof or curbs. Construction features heavy gauge galvanized steel, aluminum, stainless steel, or copper with swaged collars and wide flashing flanges. PennBarry bases support the ventilator and distribute weight evenly to roof supports. Taper cone design permits easy air movement.

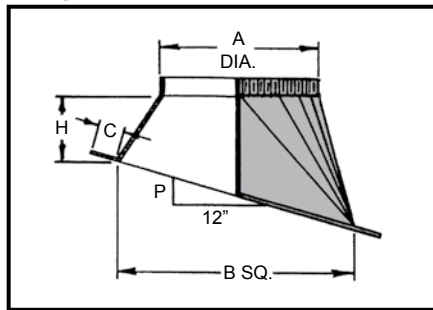
### › Flat Roof (BSF)



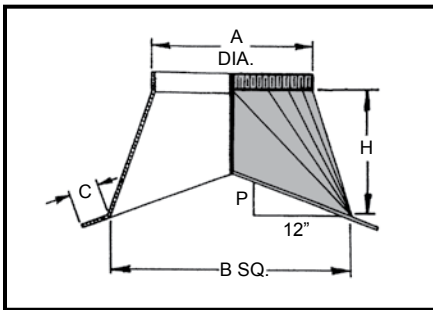
### › Curb Mounted (BSC)



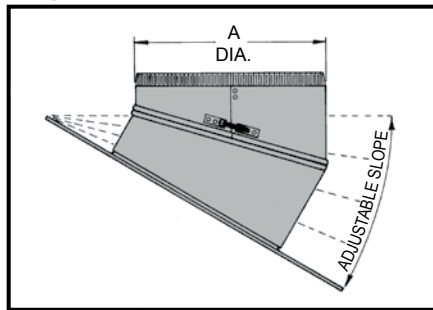
### › Single Slope (BSS)



### › Double Slope (BSR)



### › Adjustable Base (ARJ)



### › Product Configuration

#### › Model

PT = Turbine  
PA = Pul-Air  
HPA = Insul-Air

#### › Unit Material

A = Aluminum  
G = Galvanized Steel  
S = Stainless Steel  
C = Copper

#### › Damper

0 = None  
A = Aluminum Damper  
G = Galvanized Steel Damper  
S = Stainless Steel Damper  
C = Copper Damper

#### › Screen

0 = None  
I = Aluminum Insect Screen  
L = Aluminum Bird Screen

#### › Fabricated Mounting Base

0 = None  
F = Flat Roof  
C = Curb Mounted  
A = Adjustable Base

#### › Roof Slope

0 = None  
S = Single Slope  
D = Double Slope

#### › Roof Pitch

0 = None, or 1 thru 9

#### › Slope Side

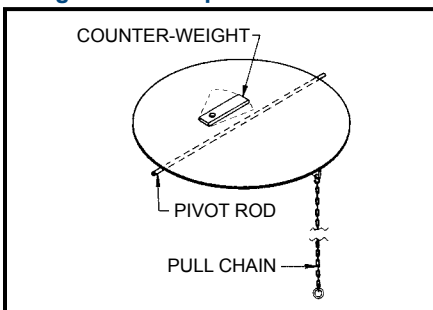
0 = None  
S = Short Side  
L = Long Side

### › Base Dimensional Reference

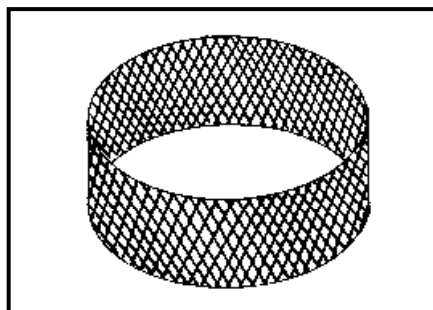
| Size            | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 12     | 14     | 15     | 16     | 18     | 20     | 24     | 30     | 36     |
|-----------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>A</b> (Dia.) | 3 7/8 | 4 7/8 | 5 7/8 | 6 7/8 | 7 7/8 | 8 7/8 | 9 7/8 | 11 7/8 | 13 7/8 | 14 7/8 | 15 7/8 | 17 7/8 | 19 7/8 | 23 7/8 | 29 7/8 | 35 7/8 |
| <b>B</b> (Dia.) | 6     | 8     | 8     | 10    | 10    | 12    | 12    | 14     | 16     | 18     | 18     | 22     | 24     | 30     | 36     | 42     |
| <b>H</b>        | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10     | 10     | 10     | 10     | 10     | 10     | 12     | 12     | 14     |
| <b>C</b>        | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| <b>D</b>        | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      |

All dimensions in inches.

### › Single Leaf Damper



### › Screens



### › Dampers & Screens

PennBarry damper accessories are available in galvanized steel, aluminum, stainless steel, or copper. Screens are aluminum.

# Other PennBarry Products

## Centrifugal Products



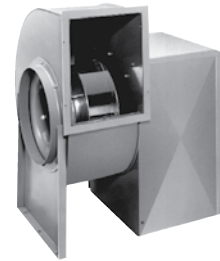
› **Domex**  
Centrifugal  
Roof Exhausters



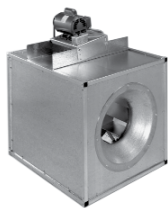
› **Fumex Fatrap**  
Kitchen Hood Centrifugal  
Roof Exhausters



› **Zephyr**  
Ceiling and Inline Fans



› **Dynamo**  
Centrifugal Blowers



› **Centrex Inliner**  
Centrifugal Inline Fan



› **LC Dynafan**  
Low Contour Centrifugal  
Roof Exhausters

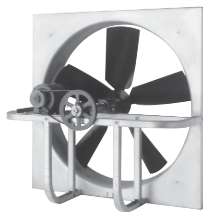


› **ESI**  
Efficient Silent  
Inline Fan



› **Fume Exhaust**  
Curb Mounted  
Centrifugal Fans

## Axial / Gravity Products



› **Breezeway**  
Propeller Wall Fan



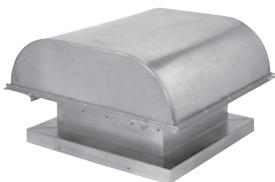
› **Hi-Ex**  
Power Roof Ventilator



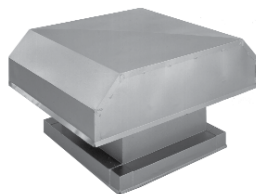
› **Tubeaxial**  
Inline Fans



› **Vaneaxial**  
Inline Fans



› **Powered Airette**  
Axial Roof Ventilators



› **Airette**  
Gravity Intake/Relief Hood



› **Domex Axial**  
Axial Roof Ventilators



› **Axcentrix**  
Bifurcator Fan

