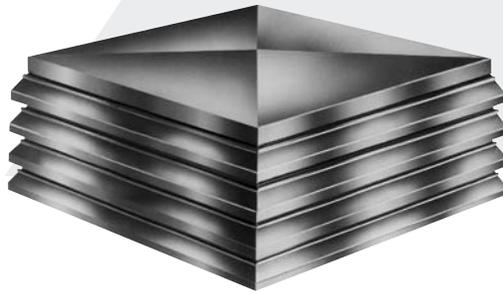




PH08



PENNHOUSE

Model: PH
Roof Mounted
Louvered Gravity Ventilator
Intake / Relief

MOVING YOUR WAY

› Pennhouse

Model: PH

Available in Pre-Assembled sizes of up to 72" x 220" x 80".

*Large sizes will be shipped in sections.

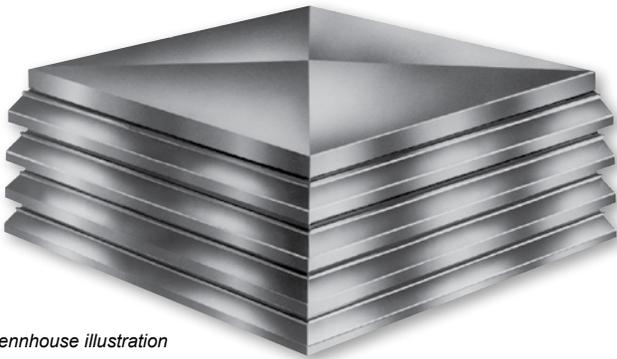


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PennBarry reserves the right to make changes at any time, without notice, to models, construction, specifications, options, availability, etc. This bulletin illustrates the appearance of PennBarry products at the time of publication. To view the latest updates, visit PennBarry at www.pennbarry.com.

Introduction, Features & Benefits

Roof Mounted Louvered Gravity Ventilator



Pennhouse illustration

› Roof Mounted Louvered Ventilator

PennBarry's aluminum Pennhouses are attractive, architecturally appealing housings designed for several uses. Units serve frequently as gravity ventilators, pressure relief units, fan discharge caps, spillways, fresh air intakes, and sight shields (for aesthetic purposes) for roof-mounted equipment. The silhouette of the Pennhouse is compatible with the Linea centrifugal exhauster line. This serves to maintain architectural harmony where units of both types are required on the same roof.

Pennhouse louver blades are heavy aluminum alloy made from .081" thickness 6063 T5 extrusion. The storm blade feature is standard on all Pennhouses and provides extra rigidity for the blades. Pennhouse corners are available in both a box corner or mitered corner with aluminum welded construction. Large size units, where the dimensions exceed 72" x 220" x 80" are generally shipped in sections. Consult our factory for construction details. Structural framing for the Pennhouse is sturdy extruded aluminum members on maximum 48" centers. Vertical angles project down to the lower edge of the curb cap and are a convenient and strong place for fastening to the roof curb.

› Maximum Stress

- The Flat Roof (cross broke) is braced for 30 pounds per square foot snow load.
- Pennhouse units are braced to withstand up to 60 mph wind load.

› Blank-off Panels

Blank-off panels are generally used to close off the inactive sections in a line of louvers. When used in Pennhouses, divider baffles or blank-off panels allow air intake through one section of the Pennhouse and air discharge through another. Blank-off panels can be insulated or non-insulated, removable or non-removable.

› Sub Frame Panels / Doors

Pennhouses may be provided with a hinged or lift out louvered panel mounted in a subframe (box corner style only).

› Dampers

Where additional air control is necessary, Pennhouses can be fitted with backdraft or control dampers. Installed in the throat, dampers may be operated by electric motors, pneumatic motors or manual actuators. Units are manufactured and shipped in matched, marked modular sections for easy on-site installation with dampers installed and test-cycled at the factory before shipment.

› Hinged Roof / Insulated Roof / Pitched Roof

On Pennhouse sizes not exceeding 60"x60" throat, roof can be hinged for lift up access. 1" insulation can be directly affixed to underside of roof. Pitched roof is also available, but required when the shortest dimension exceeds 72".

› Security Bars

Selection of bar diameters, frame styles and spacing are available.

› Framing / Curb Cap

Flush framing can be specified, replacing the standard 3" extended framing. Standard curb cap of 2 3/4" can be replaced by 4 1/2" curb cap or other sizes by specifying.

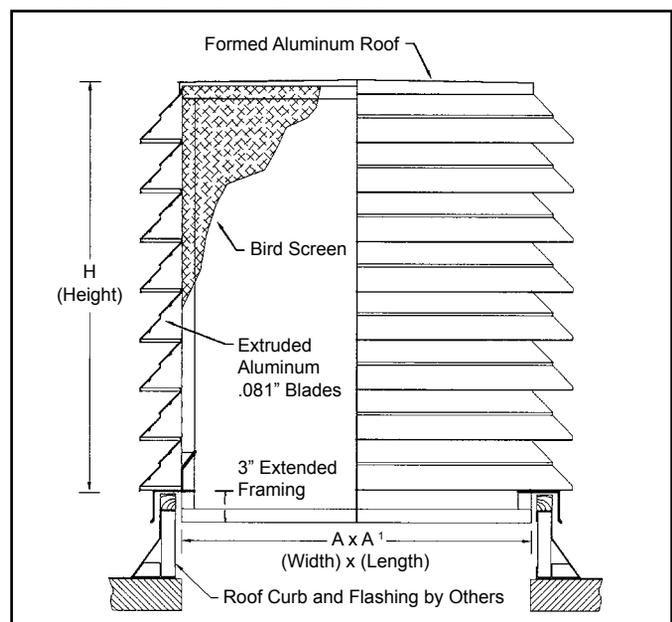
› Roof Curbs

See the latest Roof Curbs catalog for a full line of PennBarry Roof Curbs.

› Filters For Intake Vents

All louver Pennhouses can be supplied with filter racks and disposable or permanent filters in a wide range of styles and efficiencies. 1" and 2" filter racks are available on front or rear, hinged or flush mount, top or side loading and filters are available in disposable or washable (box corner style only).

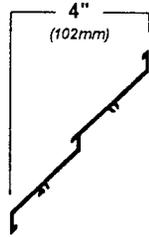
› Extruded Aluminum Pennhouse



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› Louvers

Extruded aluminum Pennhouses are available in the 2.081" thick, 45° step blade louver as standard.



45° STEP

› Pennhouse Sizing Guide

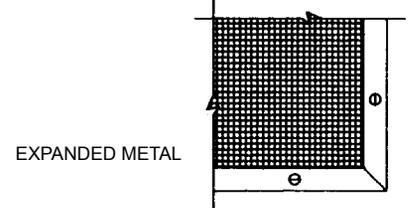
Air Flow (cfm) ÷ Louver Velocity (fpm) = Free Area (Square Feet)

- A – Use the **Static Pressure Loss Chart** and determine the Louver **Free Area Velocity** (fpm) that has both an acceptable Pressure Drop and Velocity Area required.
- B – Execute the formula above to calculate the **Free Area** required.
- C – Use the **Pennhouse sizing chart** to find the **Free Area** required (square feet), move down the column of throat sizes and heights to find the appropriate fit.

NOTE: Louver velocities above 500 fpm are not recommended for Intake. Pennhouse HEIGHT should not exceed more than 1/2 the length of the shortest side for Intake Pennhouses (as determined by AMCA).

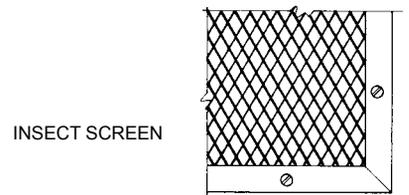
› Expanded Metal Screens

.051" aluminum diamond mesh, 3/4" size is available. This screen has the highest free area for bird screens.



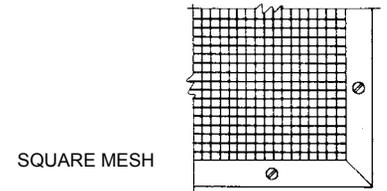
› Insect Screens

Framed insect screens are stocked in 18"x14", .011" mesh aluminum.



› Galvanized Steel Screens - Standard

Galvanized steel screens are available in 1/2" mesh, 18 gauge.



NOTE: For design free area velocity up to 1200 FPM the effect of a screen is negligible. If design velocities required are greater, consult factory.

› Pennhouse Sizing Chart

LOUVER VELOCITY FPM	STEP BLADE	
	INTAKE	EXHAUST
300	0.02	0.02
400	0.03	0.03
500	0.04	0.04
600	0.06	0.06
700	0.08	0.08
800	0.11	0.11
900	0.14	0.14
1000	0.17	0.17
1100	0.20	0.20
1200	0.24	0.24
1300	0.29	0.28
1600	0.43	0.43
2000	0.68	0.67

Performance Data

› Static Pressure Loss (Inches W.G.)

HEIGHT	FREE AREA REQUIRED (SQUARE FEET)																	
	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60
	THROAT SIZE (PERIMETER INCHES)																	
22"	32	66	98	132	164	198	230	262	296	328	410	494	576	656	-	-	-	-
27"	-	-	78	104	130	156	182	208	234	260	326	392	456	522	586	652	-	-
31"	-	-	64	86	108	130	152	172	194	216	270	324	378	432	486	540	594	648
36"	-	-	-	74	92	110	128	146	164	184	228	274	320	366	412	458	504	550
40"	-	-	-	-	-	96	112	128	144	160	200	240	280	320	360	400	440	480
45"	-	-	-	-	-	-	98	112	126	142	176	212	246	282	318	352	388	424
50"	-	-	-	-	-	-	-	102	114	126	160	192	224	256	286	318	350	382
54"	-	-	-	-	-	-	-	-	104	116	144	172	202	230	260	288	316	346
59"	-	-	-	-	-	-	-	-	-	-	132	158	184	212	236	264	290	316
64"	-	-	-	-	-	-	-	-	-	-	-	146	170	194	220	244	268	292
68"	-	-	-	-	-	-	-	-	-	-	-	136	158	180	202	224	248	270
73"	-	-	-	-	-	-	-	-	-	-	-	-	148	168	188	210	230	252
77"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176	196	216	236

Engineering Specifications & Configurations

› Model

PH = Pennhouse

› Paint / Coating

Sizes 08 - 36

0 = None
 B = Air Dry Epoxy
 Q = Air Dry Enamel
 Y = Heresite

› Color

0 = None
 50 = Chrome Green
 53 = Williamsburg Blue
 55 = Pale Green
 56 = Dove Gray
 61 = White
 63 = Oxford Beige
 65 = Dover White
 66 = Desert Tan
 70 = Black
 73 = Smoke Gray
 77 = Brick Red
 79 = Peppercorn
 81 = Pale Brown
 83 = Chocolate Brown
 85 = Timeless Bronze
 94 = Charcoal
 X = Special

› Damper

0 = None
 BDD = Gravity Backdraft Damper
 MD1 = Gravity Backdraft Damper 115V
 MD2 = Gravity Backdraft Damper 230V
 MD4 = Gravity Backdraft Damper 460V

› Roof Curb

0 = None G = SFA18 P = SFG18
 A = UCG8 H = SCG16 Q = SG16
 B = UCG12 J = SCA16 R = SRA16
 C = UCG18 K = UCA18 S = SRG16
 D = UCA8 L = UG12 X = Special
 E = UCA12 M = SA16
 F = SFA12 N = SFG12

› Roof Pitch

0 = None
 S = Single Slope
 D = Double Slope

› Metal Liner

0 = None
 L = Metal Liner

› Damper Holding Plate

0 = None
 P = Damper Holding Plate

› Neoprene Gasket

0 = None
 G = Gasket

› Curb Paint/Coating

0 = None
 B = Air Dry Epoxy
 Q = Air Dry Enamel
 Y = Heresite

› Bird Insect Screen

0 = None
 A = 18 x 14 Mesh Aluminum
 B = 1/2" Woven Aluminum
 C = 3/4" Expanded Aluminum
 D = 1/2" .047 Welded Stainless Steel

› Filter Rack

0 = None
 A = 1" Rack w/ Washable Filter
 B = 1" Rack w/ Disposable Filter
 C = 2" Rack with Washable Filter
 D = 1' Rack Only
 E = 2" Rack Only
 F = 2" Rack with Disposable Filter

› Hinged Roof

0 = None
 R = Hinged Roof

› Insulation

0 = None
 R = Sound Attenuating Insulation 1" Rigid

› Suggested Specifications

LOUVER HOUSE, roof mounted air intake/exhaust housings shall be PennBarry Pennhouse, manufactured by PennBarry. Louver houses shall have heavy .081" thickness extruded aluminum blades of the storm blade style with corners mitered and welded or box corners if ordering filters. Curb caps shall be formed of heavy gauge aluminum and the entire assembly braced by heavy interior aluminum upright angles at the corners and along the sides. Louver houses shall have a (mill finish) and be shipped in pre-assembled sections in sizes up to 72" x 220" x 80" and shall have 1/2" mesh, 19 gauge galvanized bird screen.

1-Year Limited Manufacturer Warranty

› Products Covered

PennBarry Fans and Ventilators (each, a “PennBarry Product”)

› One Year Limited Warranty For PennBarry Products

PennBarry warrants to the original commercial purchaser that the PennBarry Products will be free from defects in material and workmanship for a period of one (1) year from the date of shipment.

› Exclusive Remedy

PennBarry will, at its option, repair or replace (without removal or installation) the affected components of any defective PennBarry Product; repair or replace (without removal or installation) the entire defective PennBarry Product; or refund the invoice price of the PennBarry Product. In all cases, a reasonable time period must be allowed for warranty repairs to be completed.

› What You Must Do

In order to make a claim under these warranties:

- You must be the original commercial purchaser of the PennBarry Product.
- You must promptly notify us, within the warranty period, of any defect and provide us with any substantiation that we may reasonably request.
- The PennBarry Product must have been installed and maintained in accordance with good industry practice and any specific PennBarry recommendations.

› Exclusions

These warranties do not cover defects caused by:

- Improper design or operation of the system into which the PennBarry Product is incorporated.
- Improper installation.
- Accident, abuse or misuse.
- Unreasonable use (including any use for non-commercial purposes, failure to provide reasonable and necessary maintenance as specified by PennBarry, misapplication and operation in excess of stated performance characteristics).
- Components not manufactured by PennBarry.

› Limitations

- In all cases, PennBarry reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoice price of the defective PennBarry Product (or, if the PennBarry Product has been discontinued, of the most nearly comparable current product).
- PennBarry reserves the right to furnish a substitute or replacement component or product in the event a PennBarry Product or any component of the product is discontinued or otherwise unavailable.
- PennBarry’s only obligation with respect to components not manufactured by PennBarry shall be to pass through the warranty made by the manufacturer of the defective component.

› General

The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).

PennBarry hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of PennBarry with respect to the PennBarry Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoice price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

Inquiries regarding these warranties should be sent to: PennBarry, 1401 North Plano Road, Richardson, TX 75081

Other PennBarry Products

Centrifugal Products



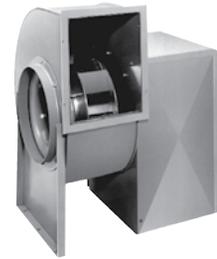
› **Domex**
Centrifugal
Roof Exhausters



› **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

