



PENNBARRY™

Moving Your Way

ROOF CURBS

Prefabricated Curbs

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BULLETIN RC15

INTRODUCTION

Series of Prefabricated Roof Curbs

Eliminate guessing and potential problems by matching PennBarry fans and vents with PennBarry roof curbs.

- Ensure a tightly sealed roof through stable design and integral flashing.
- Factory-built curbs provide a consistent termination of the duct system.
- PennBarry can coordinate orders for shipment or release of the curb portion early to allow close-in of the roof.
- Various curb heights are available.
- Standard configurations are canted, cantless, raised cant, or self-flashing curb designs.
- Sturdy wood-nailers are standard (except on SF curbs) and provide an ideal surface for positive mechanical fastening of PennBarry fan or vent and roofing paper.
- Heavy 18 gauge galvanized steel or all aluminum construction is available.
- Features liquid tight, continuously-welded corner seams.
- Rigid, 1 1/2" thick, 3 lb. glass fiber insulation attenuates sound and eliminates condensation.
- Features a wide range of special construction and options that include ventilated curbs, full metal liners, burglar bars, gasketing and more.



Standard Curb Construction

The UNIBEAM is the most economical prefabricated curb. Costs are similar or less than field-built wood or concrete curbs. UNIBEAMS are fabricated of galvanized steel or aluminum and incorporate fully welded seams.

Three configurations are available:

1. A cant strip built-in to facilitate placement of roofing paper or membranes for non-insulated roof decks.
2. A raised cant for decks with rigid insulation.
3. A straight-wall for decks with lightweight fill, single-ply roofing or tapered insulation.

All UNIBEAMS come with a wood nailer to facilitate the securing of roofing felts and the mounting of the fan or ventilator. 1 1/2" thick, rigid insulation is standard providing thermal protection and sound attenuation.

The SF is a "self-flashing" prefabricated curb. A generous 3" curb fastening flange is provided to tie the curb into the roof deck. This design simplifies installation by eliminating the need for securing roofing papers up and onto the side of the curb wall. Roofing materials need only cover the flange. Accordingly, a wood nailer is not required but is available as an option. Closed-cell neoprene rubber gasketing is standard around the top of the curb. SF curbs are fully welded and available in galvanized steel or aluminum. 1 1/2" thick, rigid insulation is standard providing thermal protection and sound deadening.

Special Curbs

PennBarry offers a variety of curbs and exhaust fans for use as a major component of the ventilation systems for commercial and institutional cooking equipment. Designs must frequently adhere to publication NFPA-96 (check local and state municipal codes). NFPA-96 requires that duct work extend a minimum of 18" above the roof surface. Furthermore, if duct work terminates into the base of an upwards discharge exhaust fan, there must be at least 40" of clearance between the exhaust fan discharge and the roof surface. PennBarry can supply curb heights and exhaust fans which conform to NFPA-96.

In addition, some building codes require the use of ventilated mounting curbs or ventilated pedestals to assure clearances are maintained between hot ducts and combustible building materials. These devices, available in different heights, provide an approved arrangement for connecting the range hood and duct work to the roof fan. The use of a ventilated curb or ventilated pedestal permits the duct to pass through the roof opening and fasten to the curb without the hot exhaust duct contacting other parts of the building or roof members. Flanged duct sections can be inserted through the curb or pedestal from the top side for easy installation. Insulation is not provided on ventilated curbs. The ventilated curb is available in galvanized steel with an 18" height. Specify the UNIBEAM VENTILATED CURB or VENTILATED PEDESTAL.

FEATURES, BENEFITS, & ACCESSORIES

Sound Attenuators

Specifications often call for sound curbs or sound attenuating curbs. Operational sound is a fact of life for any roof fan, regardless of how expertly engineered or finely balanced. Curb mounted insulation helps absorb percentages of this sound. Curb mounted insulation helps absorb percentages of this sound. Insulation also mitigates outside noise coming into buildings. All PennBarry roof curbs attenuate sound. The standard UNIBEAM and SF curb designs provide adequate sound attenuation for most installations. For instances where maximum sound attenuation is essential, a special sound absorbing insulation matrix can be provided in any UNIBEAM curb configuration with a special 16" height. Specify the ULTRA SONOTROL UNIBEAM CURB.

Single & Double Pitch Mounting

All PennBarry curbs are available for installation on pitched surfaces. Providing the slope of the roof will assure an accurate match between roof curb and roof deck.

Metal Liners

Full metal liners are available for all designs except the ventilated curb. Liners are specified when exhaust air is corrosive or it is desirable or required to separate the insulation from the exhaust or supply air.

Burglar Bars*

When increased building security is a requirement, factory installed steel burglar bars can be supplied. Steel rods can be 1/2", 5/8" or 3/4" diameter. They are welded in place to form 6" on center squares.

* Requires special quote.

Hinged Sub-base (Fan Accessory)

Hinged sub-bases provide easy access to dampers or for inspecting duct work. A rust-resistant hinge arrangement permits unrestricted service and maintenance in the curb well. This base is available for all small and medium sized fans and ventilators.

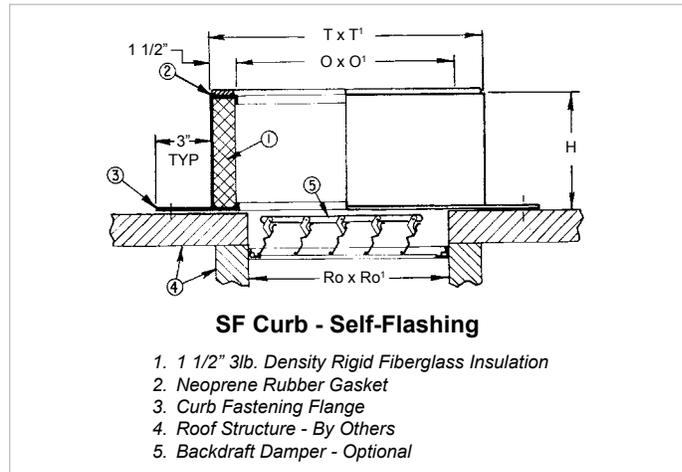
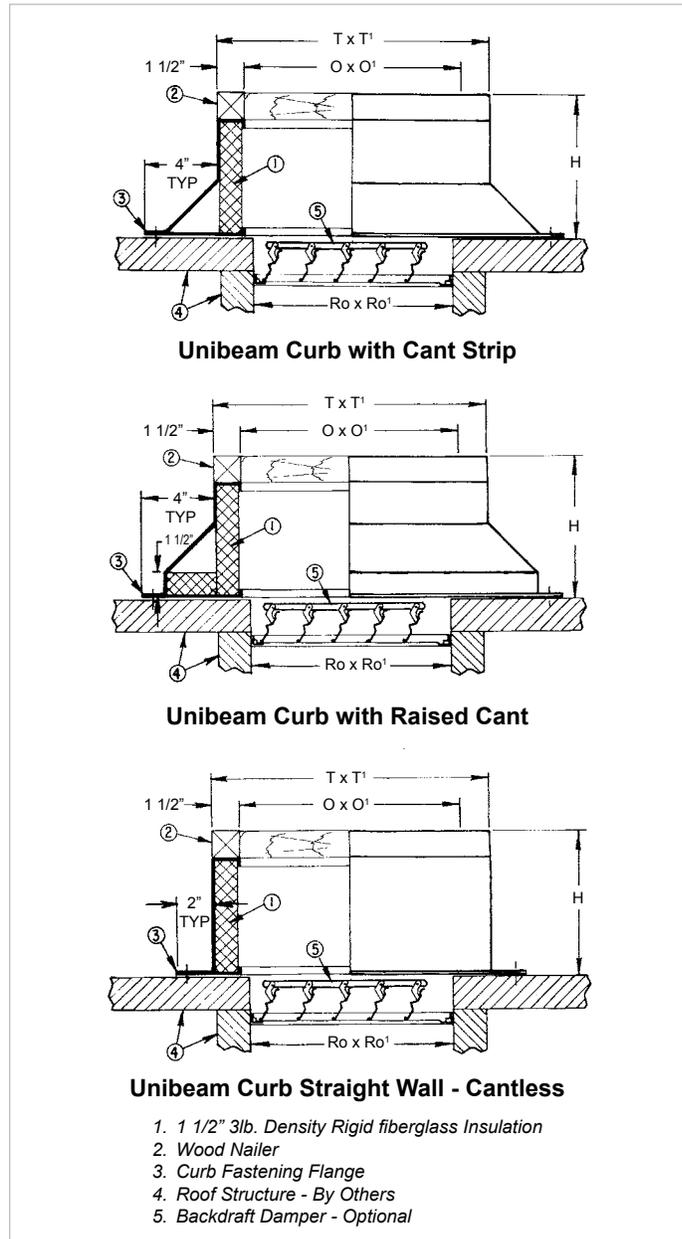
Holding Plate

A mounting pedestal, provides the most effective means for inspection, cleaning or servicing backdraft dampers. It provides solid ventilator support and a tight seal that does not disturb the roof curbs or flashing.

Ro: Roof Opening – For gravity ventilators, the Ro dimension should equal the throat dimension of the ventilator for maximum airflow.

T: Throat – The standard T dimension is 1 1/2" less than the overall dimension of the device to be mounted on the curb to assure that the curb fits into the base of the device. For SF Curb, T dimension is 1/2" less than the overall dimension of the device to be mounted. Inside dimension of curb opening is 3" less than T dimension.

H: Height – Specify height required for each curb. Standard heights are 8", 12", 16" and 18". When motorized dampers are required, the curb height must be 12" minimum.



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CURB AVAILABILITY

Nominal "T" Dimension		Domex	Fumex	LC Dynafan	Linea	Dynamo Dynapak+	Muffan
Vented	Unibeams						
13.5	13.5	-	-	-	-	-	-
14	14	-	-	-	-	-	-
14.75	14.75	-	-	-	-	-	-
16	16	-	-	-	-	-	-
16.75	16.75	-	-	-	-	-	-
17	17	DX06R, DX08S/R, DX10S/R, DX11SR/Q, DX13VSR/Q, DX06B, DX08B	FX08SR, FX10SR, FX11VSR/Q, FX13VSR/Q	LC06VSR	LF06VC	-	-
19	19	DX16VSR/Q, DX11B	FX16VSR/Q	LC12VSR	LF12VSR	-	-
19.5	19.5	-	-	-	-	-	-
20.5	20.5	-	-	-	-	-	-
21	21	-	-	-	-	-	MU3010
23.25	23.25	DX12B, DX14B	FX08B, FX10B, FX13B, FX14B, FX12BH, FX13BH	-	-	-	-
23.5*	23.5*	-	-	-	-	-	MU10V*, MU10R*
24	24	-	-	-	-	-	-
24.5	24.5	-	-	-	-	-	-
26	26	-	-	-	-	-	MU4012, MU4015
27	27	DX16B, DX18B, DX18V	FX16B, FX18B, FX18V, FX18BH	LC20BC	LF20BC	-	-
29.5	29.5	-	-	-	-	-	MU5018
30.5	30.5	-	-	-	-	-	-
32	32	DX24B	FX24B, FX24BH	LC24BC	LF24BC	-	-
33.5	33.5	-	-	-	-	-	-
34.5	34.5	-	-	LC30BC	LF30BC	-	-
35	35	DX30B	FX30B	-	-	-	-
37	37	-	-	-	-	-	-
38.5	38.5	-	-	-	-	-	-
39.5	39.5	-	-	-	-	-	-
40.5	40.5	-	-	-	-	-	-
41.5**	41.5**	-	-	-	-	-	MU20**, MU30**
42.5	42.5	-	-	-	-	-	-
43	43	DX36B	FX36B	LC40BC	LF40BC	-	-
45.5	45.5	-	-	-	-	-	-
46.5	46.5	-	-	-	-	-	-
47.5	47.5	-	-	-	-	-	-
49	49	-	-	-	-	-	-
51	51	KB420	-	-	-	DP10DP+	-
51.5	51.5	-	-	-	-	-	-
52.5	52.5	-	-	-	-	-	-
55	55	-	-	-	-	DP13DP+	-
56.5	56.5	-	-	-	-	-	MU6020
57	57	-	FMX50B	-	-	-	-
57.5	57.5	JB48	-	-	-	-	-
58.5	58.5	-	-	-	-	-	-
62	62	MB542	-	-	-	-	-
63.5	63.5	-	-	-	-	-	-
64.5	64.5	-	-	-	-	-	-
65	65	-	-	-	-	-	-
67	67	-	-	-	-	DP16DP+	-
69.5	69.5	-	-	-	-	-	-
70.5	70.5	-	-	-	-	-	-
79	79	-	-	-	-	DP20DP+	-
87	87	-	-	-	-	DP24DP+	-
94.5	94.5	-	-	-	-	-	-

Dimensions are in inches. *MU10 unit is rectangular. T x T' = 23 1/2 x 17 1/2. **MU20 and MU30 units are rectangular. T x T' is 41 1/2 x 18 1/2. *Dynapak units are rectangular. D10DP T x T' is 51 x 25, D13DP T x T' is 55 x 27, D16DP T x T' is 67 x 33, D20DP T x T' is 79 x 39, D24DP T x T' is 87 x 43.

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CURB AVAILABILITY

Nominal "T" Dimension		Powered Airette		Domex Axial		Hi-Ex			Weather Cap WCC
Vented	Unibeams	AC	AF	DAE	DAS	HC, HF, HX	HS	HZ	
13.50	13.50	-	-	-	-	-	-	-	6
14.00	14.00	-	-	-	-	-	-	-	-
14.75	14.75	-	-	DAE08	-	-	-	-	-
16.00	16.00	-	-	-	-	-	-	-	-
16.75	16.75	-	-	DAE12	-	-	-	-	-
17.00	17.00	-	-	-	-	-	-	-	08, 10
19.00	19.00	-	-	-	-	-	-	-	12
19.50	19.50	-	-	DAE14	DAS14	-	-	-	-
20.50	20.50	-	-	-	-	-	-	-	-
21.00	21.00	-	-	-	-	-	-	-	-
23.25	23.25	-	-	-	-	-	-	-	14, 16
23.50	23.50	-	-	-	-	-	-	-	-
24.00	24.00	-	-	-	-	-	-	-	-
24.50	24.50	-	-	DAE18	DAS18	-	-	-	-
26.00	26.00	-	-	-	-	-	-	-	-
27.00	27.00	-	-	-	-	-	-	-	18, 20
29.50	29.50	-	-	-	-	-	-	-	-
30.50	30.50	-	-	-	-	-	-	-	-
32.00	32.00	-	-	-	-	-	24	-	24
33.50	33.50	24, 24T, 24W1, 24W2	24, 24T, 24W1, 24W2	-	-	-	-	-	-
34.50	34.50	-	-	-	-	24	-	24	-
35.00	35.00	-	-	-	-	-	-	-	30
37.00	37.00	-	-	-	-	-	30	-	-
38.50	38.50	-	-	-	-	-	-	-	-
39.50	39.50	30, 30T1, 30T2, 30W	30, 30T1, 30T2, 30W	-	-	-	-	-	-
40.50	40.50	-	-	-	-	30	-	30	-
41.50	41.50	-	-	-	-	-	-	-	-
42.50	42.50	-	-	-	-	-	-	-	-
43.00	43.00	36, 36W1, 36W2	36, 36W	-	-	-	36	-	36
45.50	45.50	-	-	-	-	-	-	-	-
46.50	46.50	-	-	-	-	36	-	36	-
47.50	47.50	-	-	-	-	-	-	-	-
49.00	49.00	-	-	-	-	-	42	-	-
51.00	51.00	-	-	-	-	-	-	-	42
51.50	51.50	42, 42W1, 42W2	42, 42W1, 42W2	-	-	-	-	-	-
52.50	52.50	-	-	-	-	42	-	42	-
55.00	55.00	-	-	-	-	-	48	-	-
56.50	56.50	-	-	-	-	-	-	-	-
57.00	57.00	-	-	-	-	-	-	-	-
57.50	57.50	48, 48W1, 48W2	48, 48W1, 48W2	-	-	-	-	-	48
58.50	58.50	-	-	-	-	48	-	48	-
62.00	62.00	-	-	-	-	-	-	-	-
63.50	63.50	54	54	-	-	-	-	-	-
64.50	64.50	-	-	-	-	54	54	54	-
65.00	65.00	-	-	-	-	-	-	-	-
66.00	66.00	-	-	-	-	-	-	-	-
69.50	69.50	60	60	-	-	-	-	-	-
70.50	70.50	-	-	-	-	60	60	60	-
81.50	81.50	72	-	-	-	-	-	-	-
82.50	82.50	-	-	-	-	72	-	72	-
94.50	94.50	-	-	-	-	-	-	-	-

Dimensions are in inches.

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ENGINEERING SPECIFICATIONS

Model

SFA12 = Self Flashing, Aluminum, Size 12
 SFA18 = Self Flashing, Aluminum, Size 18
 SFG12 = Self Flashing, Galvanized, Size 12
 SFG18 = Self Flashing, Galvanized, Size 18
 SCA16 = Sonotrol, Cant, Aluminum, Size 16
 SCG16 = Sonotrol, Cant, Galvanized, Size 16
 SA16 = Sonotrol, No Cant, Aluminum, Size 16
 SG16 = Sonotrol, No Cant, Galvanized, Size 16
 SRA16 = Sonotrol, Raised Cant, Aluminum, Size 16
 SRG16 = Sonotrol, Raised Cant, Galvanized, Size 16
 UCA8 = Cant, Aluminum, Size 8
 UCA12 = Cant, Aluminum, Size 12
 UCA18 = Cant, Aluminum, Size 18
 UCG8 = Cant, Galvanized, Size 8
 UCG12 = Cant, Galvanized, Size 12
 UCG18 = Cant, Galvanized, Size 18
 UG12 = No Cant, Galvanized, Size 12
 UG18 = No Cant, Galvanized, Size 18
 UA12 = No Cant, Aluminum, Size 12
 UA18 = No Cant, Aluminum, Size 18
 URA9 = Raised Cant, Aluminum, Size 9
 URA12 = Raised Cant, Aluminum, Size 12
 URA18 = Raised Cant, Aluminum, Size 18
 URG9 = Raised Cant, Galvanized, Size 9
 URG12 = Raised Cant, Galvanized, Size 12
 URG18 = Raised Cant, Galvanized, Size 18
 UVA18 = Vented, Aluminum, Size 18
 UVG18 = Vented, Galvanized, Size 18

Outer Curb Dimension 1

See selection software.

Outer Curb Dimension 2

See selection software.

Roof Slope

0 = None
 S = Single Slope
 D = Double Slope

Roof Pitch

See selection software.

Side Slope

0 = None
 S = Short Side
 L = Long Side

Metal Liner

0 = None
 L = Liner

Damper Holding Plate

0 = None
 P = Damper Holding Plate

Neoprene Gasket

0 = None
 G = Gasket

Wooden Nailer

0 = None
 W = Wooden Nailer



PennBarry Product Solutions

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

Utility Vent Sets
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
Fume Exhaust

ENERGY RECOVERY

Outdoor Units
Indoor Units

KITCHEN VENTILATION

Kitchen Hoods
Make-Up Air Units
Exhaust Fans



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.

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