

HINGE BASED ROUND NON-TAPERED ALUMINUM BF-HBRNTA

SPECIFICATIONS

Shaft

Round extruded from 6063 alloy aluminum tubing. Heat treated to produce a T6 temper. Shaft includes a hand hole furnished with cover. Shaft is furnished with ground lugs located on cast aluminum base plate.

Drilling Side Mount

A removable pole cap is included. Pole will be drilled to match U.S. Architectural fixtures. For other Drilling required, please specify DP after specified drill pattern. (example: 2-180DP)

Pole Top Mount

Standard pole top mount - PT27, fabricated from 2.5" (2.875" O.D.) aluminum pipe – tenon options available for pole tops please see Mounting column. For other pole top configurations please consult factory.

Hand Hole Cover

Rectangular 3" x 5" stamped heavy gauge aluminum material Hand Hole Cover, 2¼" x 4¼" access opening. Sealed door is secured by a formed aluminum bar and a stainless steel, tamper proof screw.

Anchor Base & Cover

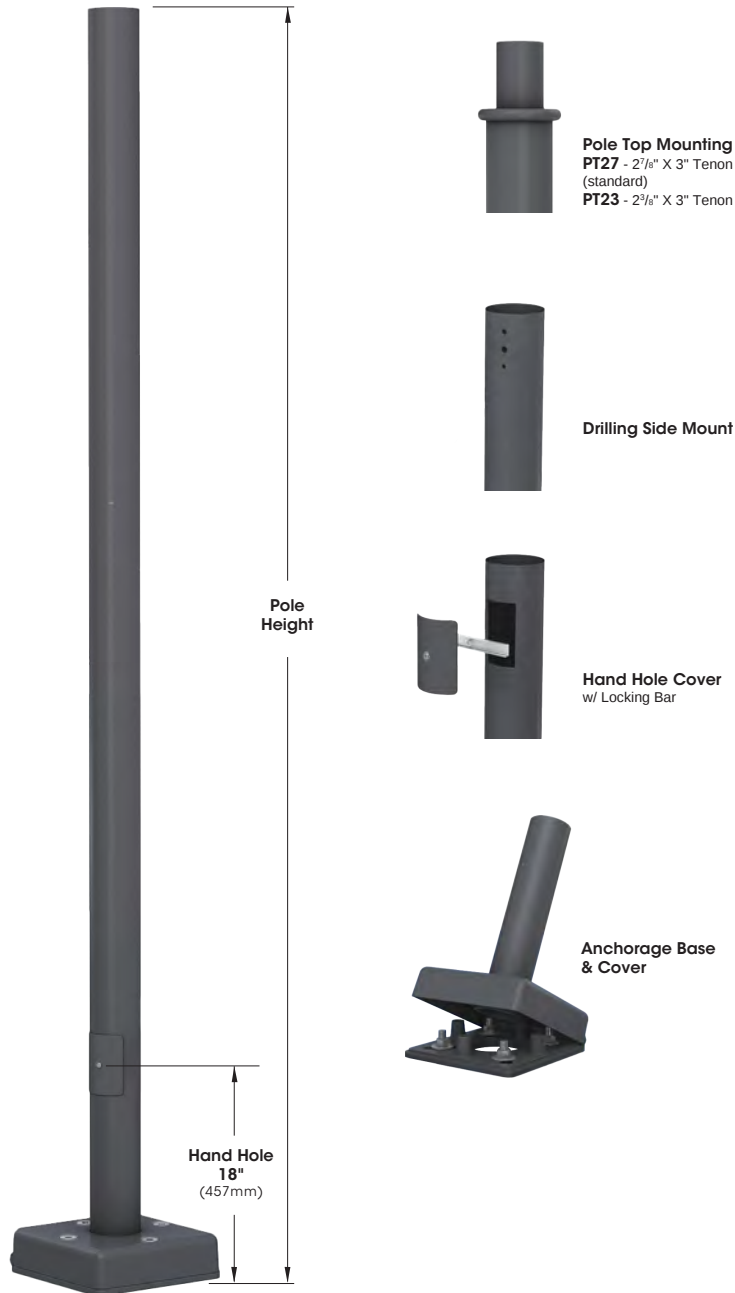
Uniquely designed, patented Hinge Base Pole Assembly was created to simplify the installation process. Hinged Anchor Base Assembly, with four heavy wall bosses to accept four stainless steel Countersink Bolts, for a strong and secure fit, is cast from 356 alloy aluminum. The complete Assembly is heated-treated to a T6 temper. (4) 3/4"-10 Bolts secure Base to Anchor Plate. Base Hinges utilize a 11/16" steel Pin, to insure easy and secure hinging mechanism for safe installation and maintenance. Steel Pin is easily removed by internal stainless Set Screw. Hinge Base is self-containing with the Base Top serving as an aesthetically pleasing decorative Cover.

Anchorage

(4) anchor bolts fabricated from hot rolled steel bar. Minimum yield strength of 50,000 P.S.I. Bolts have "L" bend on one end and are threaded on the other. Bolts are fully galvanized and are furnished with two nuts and two washers.

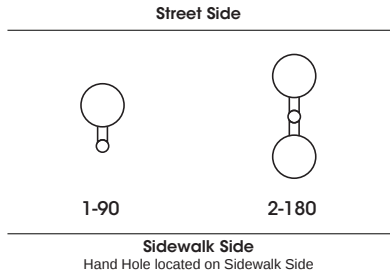
Finish

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.



Pole Model	Pole Dia.	Pole Height
BF-HBRNTA4	4"	8' - 14'
BF-HBRNTA5	5"	10' - 20'

DRILLING SIDE MOUNT

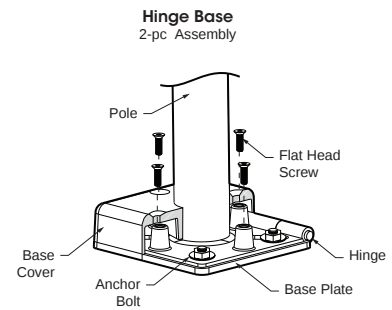
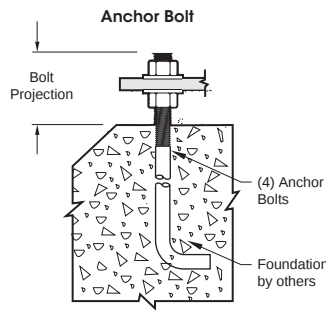
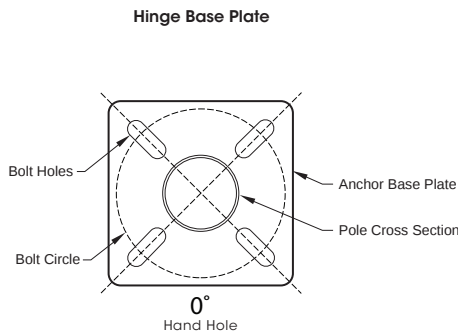


Notes

When drilling pattern from other manufacturer's fixture is required, add "DP" to drill specifications.
(Example: 2-180DP) **Drilling template must be provided.**

In the case of other manufacturer's drilling pattern, customer must provide drilling pattern.

BOLT CIRCLE



Catalog Number	HINGE BASE POLE								ANCHOR BOLTS				HINGE BASE ASSEMBLY		
	Height		Bottom - Top				Wall Thickness (In/Ga)	Weight (Lbs)	Bolt Size	Bolt Projection above grade ^{2,3}	Bolt Circle Dia Range ¹	Bolt Circle Dia (In) (Rec.) ¹	Template	Hinge Anchor Plate	Hinge Base Assembly
	Ft	M	In	Cm											
BF-HBRNTA 84-125	8	2.44	4.00	4.00	10.16	10.16	0.125	34	3/4" x 18" x 3"	3 3/4" - 3 3/4"	8" - 12"	10"	US10	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 104-125	10	3.05	4.00	4.00	10.16	10.16	0.125	38	3/4" x 18" x 3"	3 3/4" - 3 3/4"	8" - 12"	10"	US10	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 124-125	12	3.66	4.00	4.00	10.16	10.16	0.125	41	3/4" x 18" x 3"	3 3/4" - 3 3/4"	8" - 12"	10"	US10	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 144-125	14	4.27	4.00	4.00	10.16	10.16	0.125	45	3/4" x 18" x 3"	3 3/4" - 3 3/4"	8" - 12"	10"	US10	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 105-125	10	3.05	5.00	5.00	12.70	12.70	0.125	42	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 125-125	12	3.66	5.00	5.00	12.70	12.70	0.125	47	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 145-125	14	4.27	5.00	5.00	12.70	12.70	0.125	51	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 145-188	14	4.27	5.00	5.00	12.70	12.70	0.188	67	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 165-125	16	4.88	5.00	5.00	12.70	12.70	0.125	56	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 165-188	16	4.88	5.00	5.00	12.70	12.70	0.188	73	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 185-125	18	5.49	5.00	5.00	12.70	12.70	0.125	60	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 185-188	18	5.49	5.00	5.00	12.70	12.70	0.188	80	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"
BF-HBRNTA 205-188	20	6.10	5.00	5.00	12.70	12.70	0.188	86	3/4" x 24" x 3"	3 3/4" - 3 3/4"	8" - 12"	12"	US12	3/4" x 12" x 12"	3 1/2" x 12" x 12"

1 - Not using correct bolt size or "(REC.) Recommended" Bolt Circle could result in Pole's failure.

2 - Bolt Projection is calculated for slopes with 3 degrees or less.

3 - For slopes greater than 3 degrees, please add Bolt Length Projection as necessary.

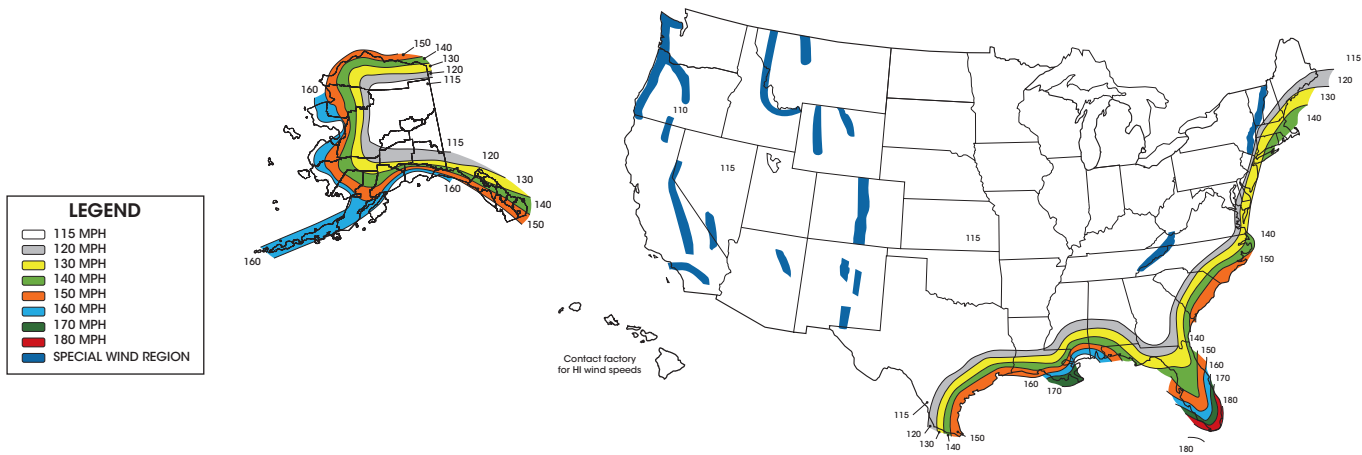
4 - The maximum weight allowed on any assembly, including fixtures and options, is 100 lbs.



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WIND MAP



EPA INFORMATION (ft²)

(per AASHTO LRFDLTS-1 revised 2022)

Cat. No.	Weight Capacity Maximum (Lbs.)	100 MPH	110 MPH	115 MPH	120 MPH	130 MPH	140 MPH	150 MPH	160 MPH	170 MPH	180 MPH
HBRNTA 84 - 125	100 - 100*	13.8	11.1	10.0	9.2	7.5	6.1	5.3	4.6	4.0	3.5
HBRNTA 104 - 125	100 - 77*	10.3	8.1	7.1	6.5	5.2	4.2	3.6	3.1	2.5	2.2
HBRNTA 124 - 125	100 - 60*	7.5	5.9	5.2	4.4	3.5	2.8	2.2	1.7	1.6	1.2
HBRNTA 144 - 125	100 - 60*	5.7	4.1	3.5	3.1	2.1	1.4	1.1	0.9	0.7	0.5
HBRNTA 105 - 125	100 - 100*	17.4	13.8	12.4	11.4	9.6	8.1	7.0	5.9	5.3	4.7
HBRNTA 125 - 125	100 - 100*	13.3	10.6	9.3	8.3	6.9	5.8	5.1	4.4	3.8	3.3
HBRNTA 145 - 125	100 - 84*	10.5	7.8	7.0	6.1	5.0	4.3	3.6	3.2	2.6	2.4
HBRNTA 145 - 188	100 - 100*	16.9	13.2	11.8	10.8	8.8	7.4	6.5	5.6	4.7	4.1
HBRNTA 165 - 125	100 - 60*	7.3	5.5	4.7	4.1	3.3	2.8	2.2	1.8	1.5	1.4
HBRNTA 165 - 188	100 - 100*	12.6	9.9	8.5	7.6	6.4	5.4	4.4	3.9	3.3	3.0
HBRNTA 185 - 125	100 - 60*	5.4	3.8	3.2	2.6	2.0	1.7	1.2	0.9	0.7	0.5
HBRNTA 185 - 188	100 - 73.5*	10.2	7.6	6.6	5.7	4.6	3.8	3.4	2.7	2.3	2.1
HBRNTA 205 - 188	100 - 60*	7.8	5.6	4.7	4.2	3.3	2.8	2.1	1.7	1.4	1.3

EPA INFORMATION (ft²)

(per 2020 FL Building Code)

Cat. No.	Weight Capacity Maximum (Lbs.)	120 MPH	130 MPH	140 MPH	150 MPH	160 MPH	170 MPH	180 MPH
HBRNTA 84 - 125	100 - 100*	8.4	7.1	5.7	4.7	4.3	3.7	3.2
HBRNTA 104 - 125	100 - 66.5*	5.8	4.7	4.0	3.1	2.7	2.3	1.9
HBRNTA 124 - 125	100 - 60*	4.3	3.2	2.6	2.0	1.5	1.4	1.1
HBRNTA 144 - 125	100 - 60*	3.0	1.8	1.3	1.0	0.8	0.7	0.5
HBRNTA 105 - 125	100 - 100*	10.1	8.8	7.4	6.5	5.3	4.8	4.2
HBRNTA 125 - 125	100 - 100*	7.5	6.6	5.5	4.6	3.9	3.6	3.0
HBRNTA 145 - 125	100 - 73.5*	5.8	4.8	4.0	3.3	3.0	2.3	2.1
HBRNTA 145 - 188	100 - 100*	9.5	8.5	7.1	5.8	5.4	4.2	3.8
HBRNTA 165 - 125	100 - 60*	3.9	2.9	2.5	2.0	1.6	1.3	1.2
HBRNTA 165 - 188	100 - 94.5*	6.9	6.0	4.8	4.1	3.5	2.9	2.7
HBRNTA 185 - 125	100 - 60*	2.4	1.8	1.5	1.1	0.8	0.6	0.4
HBRNTA 185 - 188	100 - 66.5*	5.4	4.3	3.7	3.2	2.4	2.1	1.9
HBRNTA 205 - 188	100 - 60*	4.0	3.1	2.5	2.0	1.5	1.2	1.1

Please use the following to obtain the proper weight capacity:

The maximum fixture weight equals 60 lbs., or the product of 35 lbs. x the EPA value (from the chart above), whichever is greater, not to exceed 300 lbs.

Example, EPA = 2.2, maximum fixture weight = 35 lbs. x 2.2 EPA = 77 lbs.

Notes

- Specifier is responsible for correct pole selection. For proper pole choice, the specifier must consider the total EPA of fixtures, banners, arms, and any other accessories attached to pole assembly.
- ALL EPAs are calculated for ground installations. For installations on bridges, buildings or other structures, the specifier must contact the factory or consult with a Structural Engineer.
- Unpredictable aerodynamic forces such as 2nd Mode (Aeolian) wind-induced vibrations are not included in wind velocity ratings or EPA ratings.
- Wind gust factors are considered in developing all EPA chart data.

To mitigate 2nd Mode (Aeolian) Vibration please read the following Recommendations:

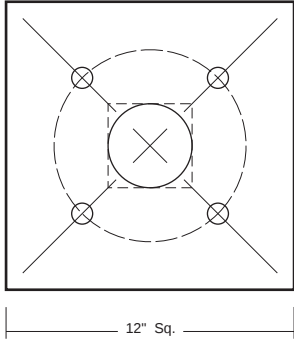
- We do not recommend the installation of poles without a fixture; such installations have been known to fail due to destructive 2nd mode pole vibration.
- Pole installations with a combined (fixtures, banners, flags, etc.) EPA of less than 2.0 ft² and 20 feet or taller are strongly recommended to be installed with a Vibration Dampener. Please consult with your Structural Engineer for site-specific requirements.
- Blackforce offers a 2nd Mode Vibration Dampener VBDS-M2 for purchase as a field-installable option.



ANCHOR BOLT TEMPLATES

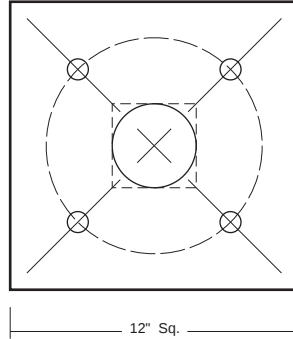
BF8

8" Bolt Circle



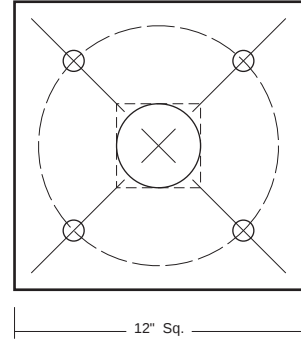
BF9

9" Bolt Circle



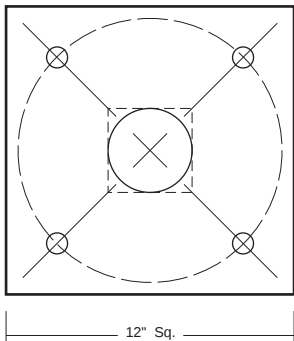
BF10

10" Bolt Circle



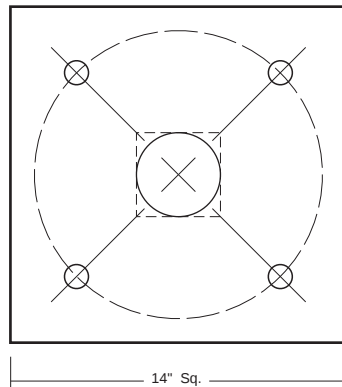
BF11

11" Bolt Circle



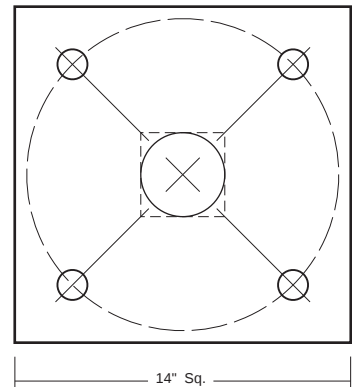
BF12

12" Bolt Circle



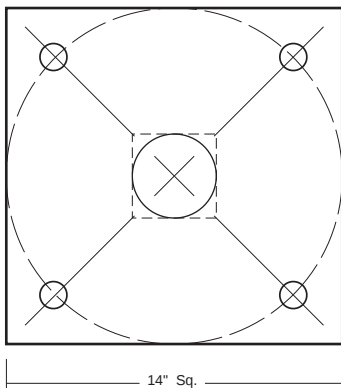
BF13

13" Bolt Circle



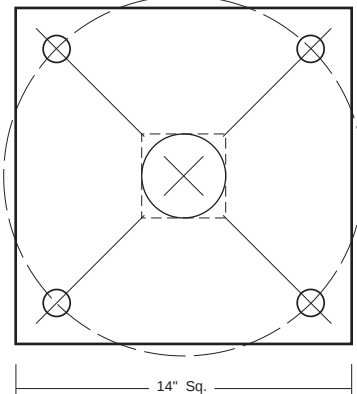
BF14

14" Bolt Circle



BF15

15" Bolt Circle



BF16

16" Bolt Circle

