

**SPECIFICATIONS**

**Shaft**

Spun tapered from 6063 alloy aluminum tubing. Heat treated to produce a T6 temper. 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 customer provided drilling template.

**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, 2 1/4" x 4 1/4" access opening. Sealed door is secured by a formed aluminum bar and a stainless steel, tamper proof screw.

**Base Plate**

Cast aluminum constructed of A-356 aluminum alloy heat treated to produce a T6 temper. Structurally engineered base includes eight heavy wall reinforcing vertical gussets. Base telescopes and is circumferentially welded to shaft at both the outside top and inside bottom of the base.

**Anchorage**

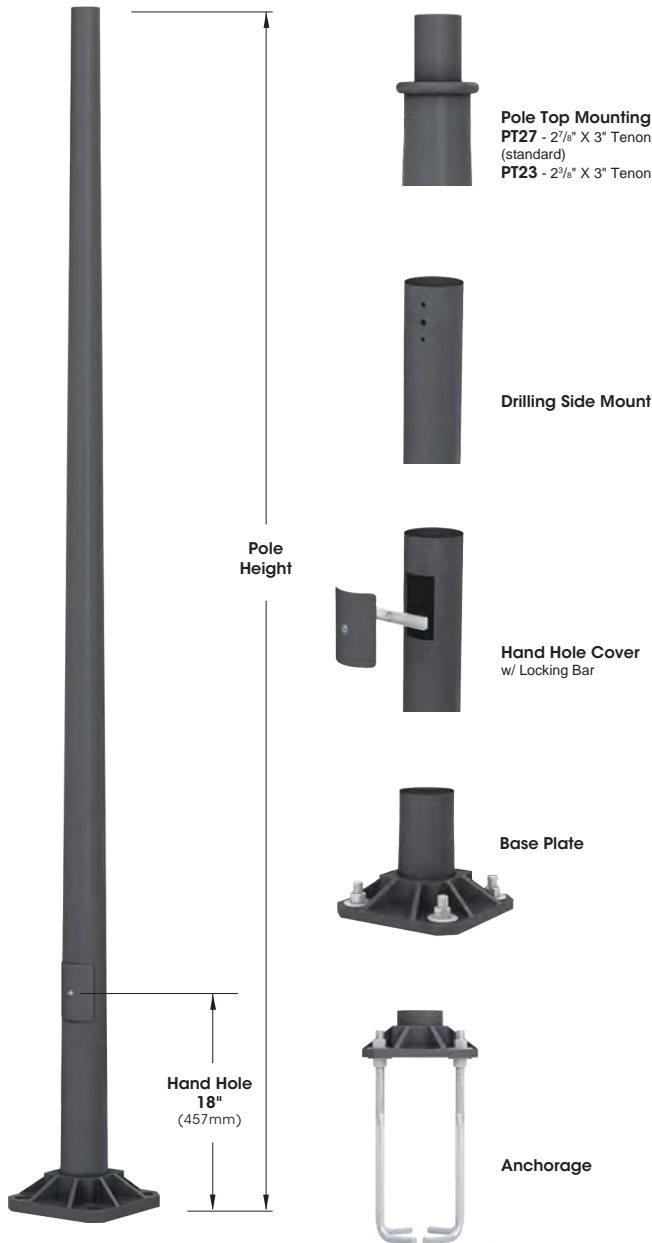
(4) anchor bolts fabricated from hot rolled steel bar. Minimum yield strength of 50,000 P.S.I. Bolts have "L" bend on one end and are threaded on the other. Bolts are fully galvanized and are furnished with two nuts and two washers.

**Base Cover**

Fabricated from heavy wall aluminum construction. Two piece cover conceals base.

**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.

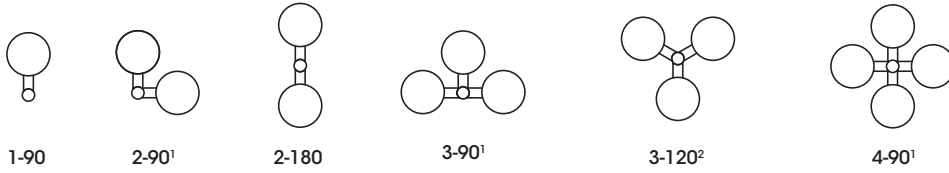


Pole Model	Pole Dia.		Pole Height
	Bottom	Top	
BF-RTA	4" - 8"	3" - 4"	14' - 25'



## DRILLING SIDE MOUNT

Street Side



Sidewalk Side

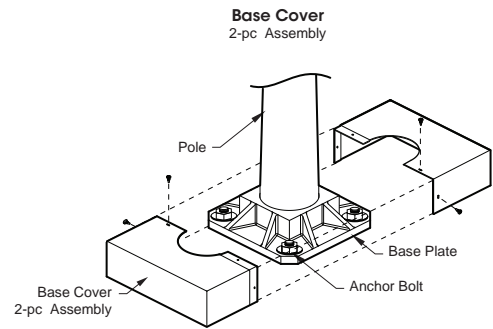
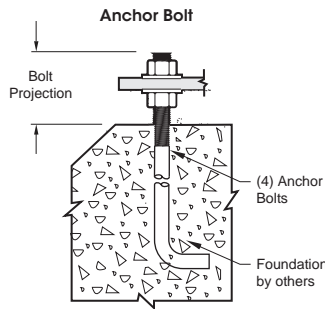
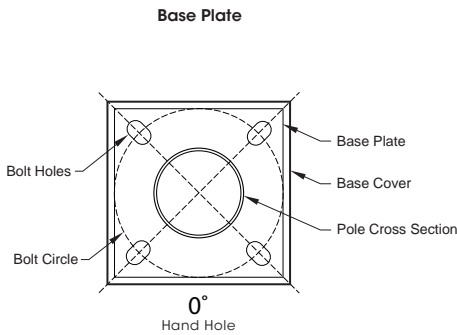
Hand Hole located on Sidewalk Side

### Notes

- 1- Poles smaller than 3" Dia. at top, or Non Linear Drilling requires PT27 and T490 Adaptor. (Adaptor is rotatable)
- 2- Poles smaller than 3" Dia. at top, or Non Linear Drilling requires PT27 and T3120 Adaptor. (Adaptor is rotatable)

[Drilling template must be provided by customer]

## BOLT CIRCLE









Catalog Number	POLE							ANCHOR BOLTS				ANCHOR PLATE			
	Height		Bottom - Top				Wall Thickness (In/Ga)	Weight (Lbs)	Bolt Size	Bolt Projection above grade <sup>2,3</sup>	Bolt Circle Dia Range <sup>1</sup>	Bolt Circle Dia (In) (Rec.) <sup>1</sup>	Template	Base Plate	Cover
	Ft	M	In	Cm	In	Cm									
BF-RTA 1443-125	14	4.27	4.00	3.00	10.16	7.62	0.125	31	3/4" x 18" x 3"	3/4" - 3/4"	9 1/2" - 10 1/2"	10"	BF10	3/4" x 10" x 10"	5" x 12" x 12"
BF-RTA 1643-125	16	4.88	4.00	3.00	10.16	7.62	0.125	34	3/4" x 18" x 3"	3/4" - 3/4"	9 1/2" - 10 1/2"	10"	BF10	3/4" x 10" x 10"	5" x 12" x 12"
BF-RTA 1853-188	18	5.49	5.00	3.00	12.70	7.62	0.188	56	1" x 36" x 4"	4" - 4 1/2"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RTA 2064-188	20	6.10	6.00	4.00	15.24	10.16	0.188	81	1" x 36" x 4"	4" - 4 1/2"	12" - 13"	13"	BF13	1" x 12" x 12"	5" x 14" x 14"
BF-RTA 2574-188	25	7.62	7.00	4.00	17.78	10.16	0.188	106	1" x 36" x 4"	4" - 4 1/2"	11"-13"	13"	BF13	1" x 13" x 13"	5" x 14" x 14"

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 - With 5" poles, max allowable bolt for 11" circle is 3/4".

### ORDERING INFORMATION

Spec/Order Example: BF-RTA1643-125/2-180/6005-S

Pole Model Number					Mounting	Finish	Options
	Pole Height	Pole Bottom	Pole Top	Wall Thickness	Tenon Mount	Standard Smooth Finish	
BF-RTA 1443-125	14'	4.00"	3.00"	0.125	PT27 27/8" X 3" Tenon (Standard)	9005-S Black	VBDS-M2 Vibration Dampener 2nd Mode Field Install
BF-RTA 1643-125	16'	4.00"	3.00"	0.125	PT23 23/8" X 3" Tenon	9003-S White	
BF-RTA 1853-188	18'	5.00"	3.00"	0.188	PT276 27/8" X 6" Tenon	7004-S Grey	
BF-RTA 2064-188	20'	6.00"	4.00"	0.188	Other Tenon Mt _____	8019-S Dark Bronze	
BF-RTA 2574-188	25'	7.00"	4.00"	0.188		6005-S Green	
	Other heights available Please consult factory				Drill Mount	Premium Finishes	
					1-90 	Custom Specify RAL# _____	
					2-180 	ANZ Anodized	
					2-90 		
					3-90 		
					4-90 		
					3-120 		
					3-120 requires PT27 and T3120 Adapter		
					2-90, 3-90, 4-90 requires PT27 and T490 Adapter		
					[Drilling template must be provided by customer]		
							Receptacle
							GFI G.F.I. Receptacle w/ Cover
							GFI-IU G.F.I. Receptacle w/ In-Use Cover
							[Specify GFI location: Height and Direction] See Location Diagram below
							T3120 3 Way Adapter
							T490 4 Way Adapter
							[Drilling template must be provided by customer]
							Coupling
							CPLN12 1/2" Coupling
							CPLN34 3/4" Coupling
							CPLN114 1 1/4" Coupling
							CPLN112 1 1/2" Coupling
							CPLN2 2" Coupling
							[Specify Coupling location: Height and Direction] See Location Diagram below
							Nipple
							NPLE12 1/2" Nipple
							NPLE34 3/4" Nipple
							NPLE114 1 1/4" Nipple
							NPLE112 1 1/2" Nipple
							NPLE2 2" Nipple
							[Specify Coupling location: Height and Direction] See Location Diagram below

### ACCESSORIES



**GFI**  
Duplex GFI  
w/ Cover



**GFI-IU**  
Duplex GFI  
w/ In-Use Cover



**T3120**  
3 Way Adapter



**T490**  
4 Way Adapter

[Drilling template must be provided by customer]



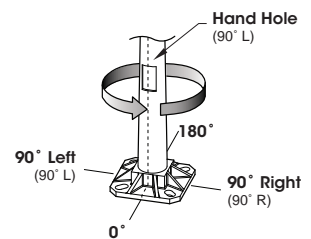
**CPLN**  
1/2", 3/4", 1 1/4", 1 1/2",  
or 2" Coupling



**NPLE**  
1/2", 3/4", 1 1/4", 1 1/2",  
or 2" Nipple

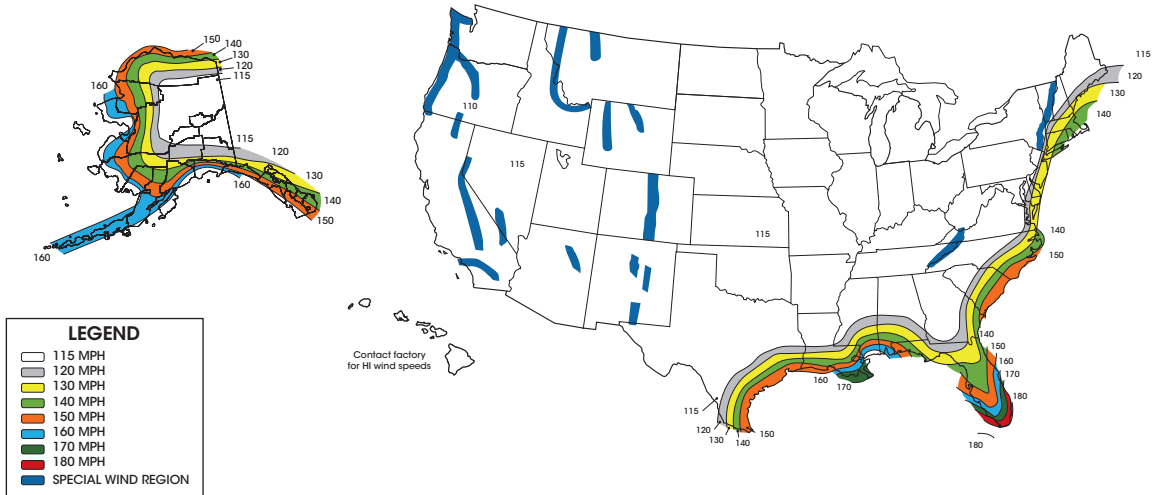
### Location Diagram

Please use this diagram to indicate placement location



Refer to the Accessories Section for other options

### WIND MAP



### EPA INFORMATION (ft<sup>2</sup>) (per AASHTO LRFDLTS-1 revised 2022)

Cat. No.	Weight Capacity Maximum (Lbs.)	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
BF-RTA 1043-188	284 - 60*	8.1	6.5	5.1	4.3	3.3	2.9
BF-RTA 1243-188	224 - 60*	6.4	4.8	3.7	2.8	2.2	1.8
BF-RTA 1443-188	172 - 60*	4.9	3.4	2.5	1.8	1.2	1.1
BF-RTA 1253-188	300 - 60*	11.0	8.7	7.0	5.8	5.0	4.4
BF-RTA 1453-188	273 - 60*	8.8	6.7	5.4	4.6	3.9	3.1
BF-RTA 1553-188	238 - 60*	7.8	5.9	4.6	4.0	3.2	2.6
BF-RTA 1653-188	193 - 60*	6.8	4.9	4.0	3.3	2.7	2.0
BF-RTA 1853-188	249 - 60*	5.5	4.0	2.8	2.2	1.8	1.4
BF-RTA 2064-188	249 - 60*	7.1	5.8	4.7	3.9	3.0	2.5
BF-RTA 2264-188	130 - 60*	3.7	2.6	1.7	0.7	0.0	0.0
BF-RTA 2464-188	102 - 60*	2.9	1.5	0.6	0.0	0.0	0.0
BF-RTA 2564-188	80 - 60*	2.4	1.1	0.0	0.0	0.0	0.0

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

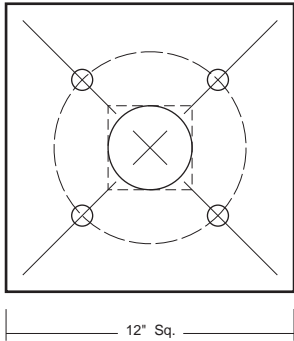
- Specifier is responsible for correct pole selection. For proper pole choice, the specifier must consider the total EPA of fixtures, banners, arms, and any other accessories attached to pole assembly.
- ALL EPAs are calculated for ground installations. For installations on bridges, buildings or other 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:

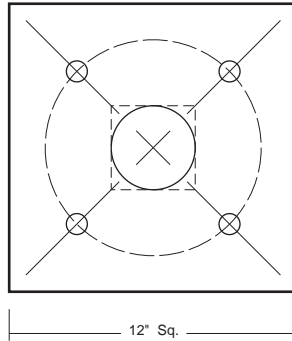
- We do not recommend the installation of poles without a fixture; such installations have been known to fail due to destructive 2nd mode pole vibration.
- Pole installations with a combined (fixtures, banners, flags, etc.) EPA of less than 2.0 ft<sup>2</sup> and 20 feet or taller are strongly recommended 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**

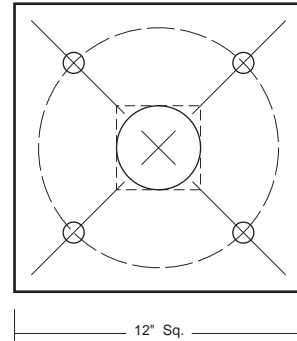
**BF8**  
8" Bolt Circle



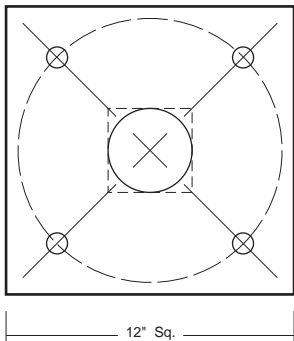
**BF9**  
9" Bolt Circle



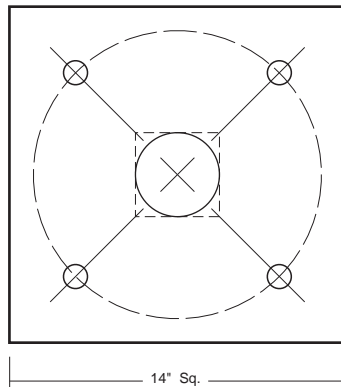
**BF10**  
10" Bolt Circle



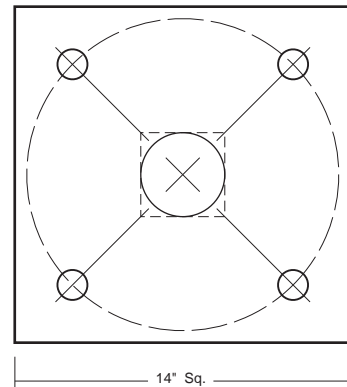
**BF11**  
11" Bolt Circle



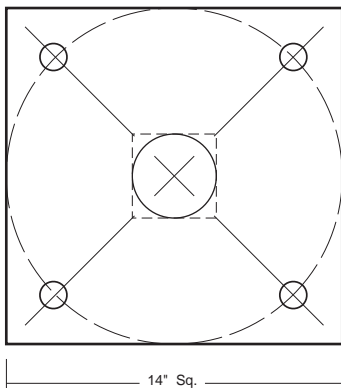
**BF12**  
12" Bolt Circle



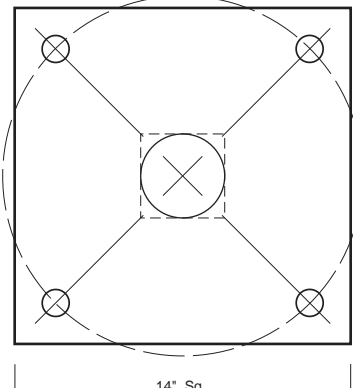
**BF13**  
13" Bolt Circle



**BF14**  
14" Bolt Circle



**BF15**  
15" Bolt Circle



**BF16**  
16" Bolt Circle

