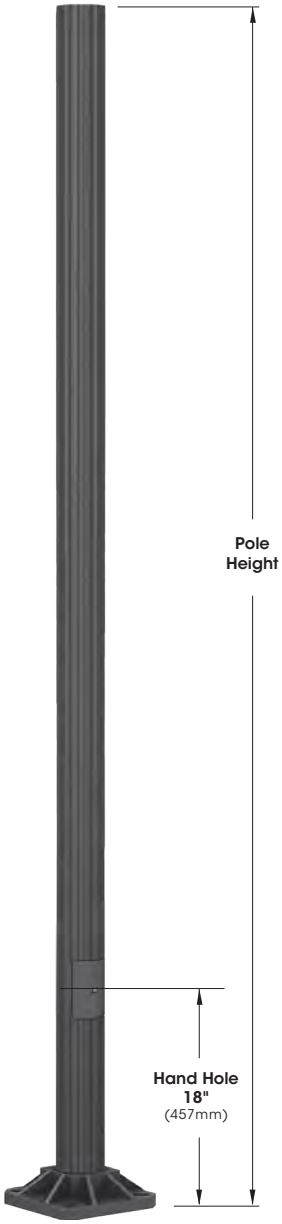
BLACKFORGE
WEST COAST METALWORKS

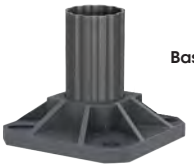
ROUND FLUTED NON-TAPERED ALUMINUM
BF-RFNTA



Pole Top Mounting
PT27 - 2⅞" X 3" Tenon (standard)
PT23 - 2⅜" X 3" Tenon

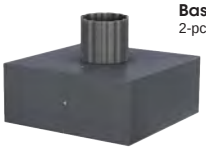
Drilling Side Mount

Hand Hole Cover
w/ Locking Bar



Base Plate

Anchorage



Base Cover
2-pc Assembly

Pole Model	Pole Dia.	Pole Height
BF-RFNTA4	4"	8' - 14'
BF-RFNTA5	5"	10' - 20'
BF-RFNTA6	6"	20' - 25'

SPECIFICATIONS

Shaft
Round fluted shaft 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 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, 2¼" x 4¼" 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.

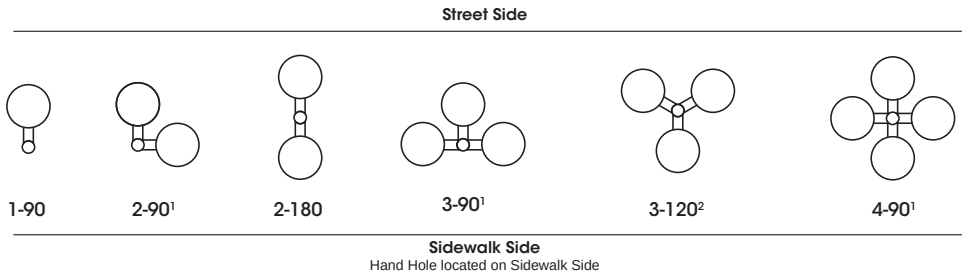
Base Cover
Fabricated from heavy wall aluminum construction. Two piece cover conceals base.

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.

BLACKFORGE
WEST COAST METALWORKS

ROUND FLUTED NON-TAPERED ALUMINUM
BF-RFNTA

DRILLING SIDE MOUNT



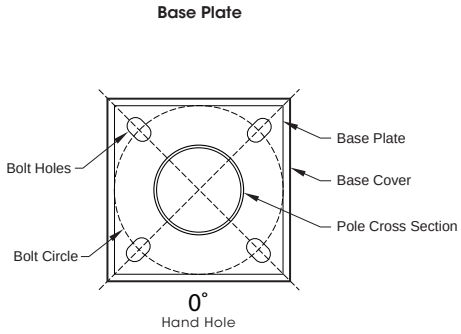
Notes

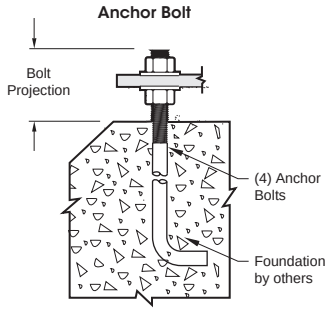
1- Poles smaller than 3" Dia. at top, or Non Linear Drilling requires PT27 and T490 Adapter. (Adaptor is rotatable)

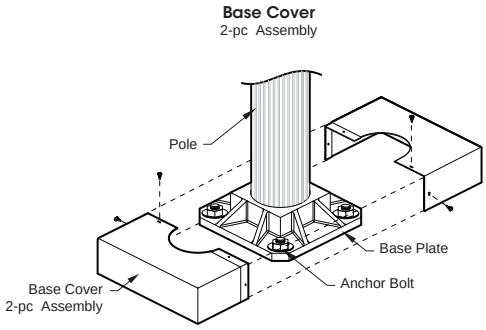
2- Poles smaller than 3" Dia. at top, or Non Linear Drilling requires PT27 and T3120 Adapter. (Adaptor is rotatable)

[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[2,3]	Bolt Circle Dia Range[1]	Bolt Circle Dia (In) (Rec.)[1]	Template	Base Plate	Cover
	Ft	M	In		Cm										
BF-RFNTA 84-125	8	2.44	4.00	4.00	10.16	10.16	0.125	23	¾" x 18" x 3"	3¼" - 3¾"	9½" - 10½"	10"	BF10	¾" x 10" x 10"	5" x 12" x 12"
BF-RFNTA 104-125	10	3.05	4.00	4.00	10.16	10.16	0.125	27	¾" x 18" x 3"	3¼" - 3¾"	9½" - 10½"	10"	BF10	¾" x 10" x 10"	5" x 12" x 12"
BF-RFNTA 124-125	12	3.66	4.00	4.00	10.16	10.16	0.125	30	¾" x 18" x 3"	3¼" - 3¾"	9½" - 10½"	10"	BF10	¾" x 10" x 10"	5" x 12" x 12"
BF-RFNTA 144-125	14	4.27	4.00	4.00	10.16	10.16	0.125	34	¾" x 18" x 3"	3¼" - 3¾"	9½" - 10½"	10"	BF10	¾" x 10" x 10"	5" x 12" x 12"
BF-RFNTA 105-125	10	3.05	5.00	5.00	12.70	12.70	0.125	32	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 125-125	12	3.66	5.00	5.00	12.70	12.70	0.125	36	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 145-125	14	4.27	5.00	5.00	12.70	12.70	0.125	41	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 145-188	14	4.27	5.00	5.00	12.70	12.70	0.188	56	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 165-125	16	4.88	5.00	5.00	12.70	12.70	0.125	45	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 165-188	16	4.88	5.00	5.00	12.70	12.70	0.188	63	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 185-125	18	5.49	5.00	5.00	12.70	12.70	0.125	50	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 185-188	18	5.49	5.00	5.00	12.70	12.70	0.188	69	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 205-188	20	6.10	500	5.00	12.70	12.70	0.188	76	¾" x 24" x 3"	3¼" - 3¾"	11" - 12"	12"	BF12	1" x 11" x 11"	5" x 12" x 12"
BF-RFNTA 206-188	20	6.10	6.00	6.00	15.24	15.24	0.188	95	1" x 36" x 4"	4" - 4½"	12" - 13"	13"	BF13	1" x 11½" x 11½"	5" x 12" x 12"
BF-RFNTA 256-188	25	7.62	6.00	6.00	15.24	15.24	0.188	115	1" x 36" x 4"	4" - 4½"	12" - 13"	13"	BF13	1" x 11½" x 11½"	5" 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 - With 5" poles, max allowable bolt for 11" circle is ¾".

BLACKFORGE
WEST COAST METALWORKS

ROUND FLUTED NON-TAPERED ALUMINUM
BF-RFNTA

ORDERING INFORMATION

Spec/Order Example: BF-RFNTA206-188/3-120/9005-S

Pole Model Number

	Pole Height	Wall Thickness
4" Pole Dia.		
BF-RFNTA 84 - 125	8'	.125
BF-RFNTA 104 - 125	10'	.125
BF-RFNTA 124 - 125	12'	.125
BF-RFNTA 144 - 125	14'	.125
5" Pole Dia.		
BF-RFNTA 105 - 125	10'	.125
BF-RFNTA 125 - 125	12'	.125
BF-RFNTA 145 - 125	14'	.125
BF-RFNTA 145 - 188	14'	.188
BF-RFNTA 165 - 125	16'	.125
BF-RFNTA 165 - 188	16'	.188
BF-RFNTA 185 - 125	18'	.125
BF-RFNTA 185 - 188	18'	.188
BF-RFNTA 205 - 188	20'	.188
6" Pole Dia.		
BF-RFNTA 206 - 188	20'	.188
BF-RFNTA 256 - 188	25'	.188

Other heights available
Please consult factory

Mounting

Tenon Mount

PT27 2⅞" X 3" Tenon (Standard)
PT23 2⅜" X 3" Tenon
PT276 2⅞" X 6" Tenon
Other Tenon Mt ____

Drill Mount

1-90
2-180
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]

Finish

Standard Smooth Finish

9005-S Black
9003-S White
7004-S Grey
8019-S Dark Bronze
6005-S Green

Premium Finishes

Custom Specify RAL# _____

ANZ Anodized

Options

VBDS-M2 Vibration Dampener
2nd Mode Field Install

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 ½" Coupling
CPLN34 ¾" Coupling
CPLN114 1¼" Coupling
CPLN112 1½" Coupling
CPLN2 2" Coupling

[**Specify Coupling location**: Height and Direction]
See Location Diagram below

Nipple

NPLE12 ½" Nipple
NPLE34 ¾" Nipple
NPLE114 1¼" Nipple
NPLE112 1½" 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

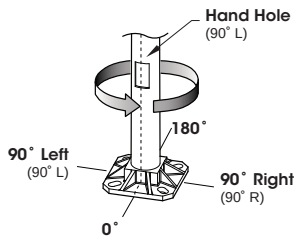
[Drilling template must be provided by customer

CPLN
½", ¾", 1¼", 1½", or 2" Coupling

NPLE
½", ¾", 1¼", 1½", or 2" Nipple

Location Diagram

Please use this diagram to indicate placement location

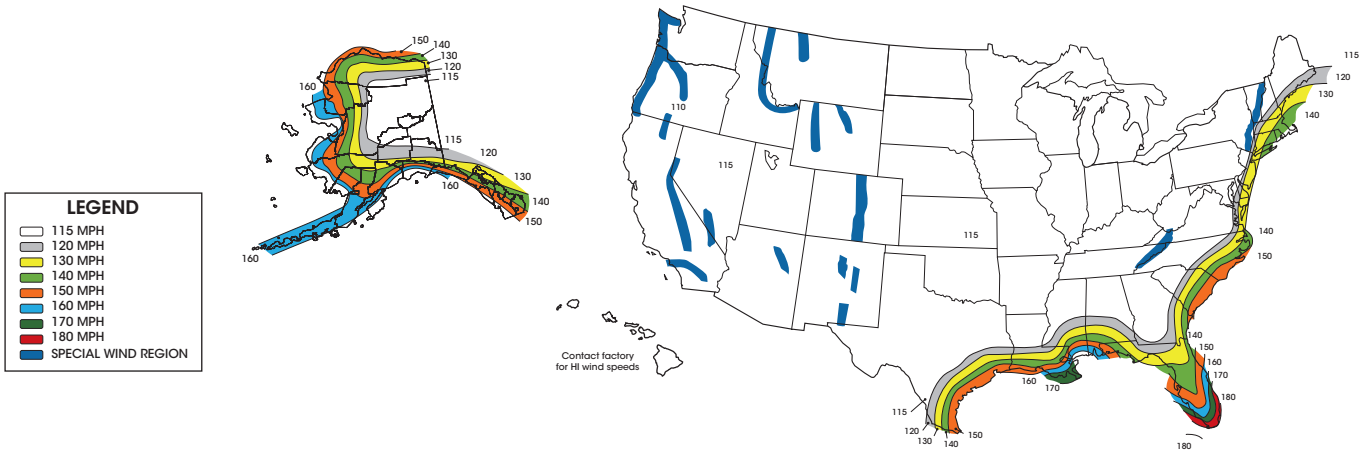


Refer to the Accessories Section for other options

BLACKFORGE
WEST COAST METALWORKS

ROUND FLUTED NON-TAPERED ALUMINUM
BF-RFNTA

WIND MAP



EPA INFORMATION (ft^2)
(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
BF-RFNTA 84 - 125	300 - 122.5*	13.8	11.1	10.0	9.2	7.5	6.1	5.3	4.6	4.0	3.5
BF-RFNTA 104 - 125	300 - 77*	10.3	8.1	7.1	6.5	5.2	4.2	3.6	3.1	2.5	2.2
BF-RFNTA 124 - 125	262.5 - 60*	7.5	5.9	5.2	4.4	3.5	2.8	2.2	1.7	1.6	1.2
BF-RFNTA 144 - 125	199.5 - 60*	5.7	4.1	3.5	3.1	2.1	1.4	1.1	0.9	0.7	0.5
BF-RFNTA 105 - 125	300 - 164.5*	17.4	13.8	12.4	11.4	9.6	8.1	7.0	5.9	5.3	4.7
BF-RFNTA 125 - 125	300 - 115.5*	13.3	10.6	9.3	8.3	6.9	5.8	5.1	4.4	3.8	3.3
BF-RFNTA 145 - 125	300 - 84*	10.5	7.8	7.0	6.1	5.0	4.3	3.6	3.2	2.6	2.4
BF-RFNTA 145 - 188	300 - 143.5*	16.9	13.2	11.8	10.8	8.8	7.4	6.5	5.6	4.7	4.1
BF-RFNTA 165 - 125	255.5 - 60*	7.3	5.5	4.7	4.1	3.3	2.8	2.2	1.8	1.5	1.4
BF-RFNTA 165 - 188	300 - 105*	12.6	9.9	8.5	7.6	6.4	5.4	4.4	3.9	3.3	3.0
BF-RFNTA 185 - 125	189 - 60*	5.4	3.8	3.2	2.6	2.0	1.7	1.2	09	0.7	0.5
BF-RFNTA 185 - 188	300 - 73.5*	10.2	7.6	6.6	5.7	4.6	3.8	3.4	2.7	2.3	2.1
BF-RFNTA 205 - 188	273 - 60*	7.8	5.6	4.7	4.2	3.3	2.8	2.1	1.7	1.4	1.3
BF-RFNTA 206 - 188	300 - 119*	13.7	10.9	9.8	8.9	7.4	6.2	6.6	5.1	4.3	3.4
BF-RFNTA 256 - 188	241.5 - 60*	6.9	5.2	4.7	4.0	3.4	3.0	2.7	2.4	2.0	1.6

EPA INFORMATION (ft^2)
(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
BF-RFNTA 84 - 125	294 - 112*	8.4	7.1	5.7	4.7	4.3	3.7	3.2
BF-RFNTA 104 - 125	203 - 66.5*	5.8	4.7	4.0	3.1	2.7	2.3	1.9
BF-RFNTA 124 - 125	150.5 - 60*	4.3	3.2	2.6	2.0	1.5	1.4	1.1
BF-RFNTA 144 - 125	105 - 60*	3.0	1.8	1.3	1.0	0.8	0.7	0.5
BF-RFNTA 105 - 125	300 - 147*	10.1	8.8	7.4	6.5	5.3	4.8	4.2
BF-RFNTA 125 - 125	262.5 - 105*	7.5	6.6	5.5	4.6	3.9	3.6	3.0
BF-RFNTA 145 - 125	203 - 73.5*	5.8	4.8	4.0	3.3	3.0	2.3	2.1
BF-RFNTA 145 - 188	300 - 133*	9.5	8.5	7.1	5.8	5.4	4.2	3.8
BF-RFNTA 165 - 125	136.5 - 60*	3.9	2.9	2.5	2.0	1.6	1.3	1.2
BF-RFNTA 165 - 188	241.5 - 94.5*	6.9	6.0	4.8	4.1	3.5	2.9	2.7
BF-RFNTA 185 - 125	84 - 60*	2.4	1.8	1.5	1.1	0.8	0.6	0.4
BF-RFNTA 185 - 188	189 - 66.5*	5.4	4.3	3.7	3.2	2.4	2.1	1.9
BF-RFNTA 205 - 188	140 - 60*	4.0	3.1	2.5	2.0	1.5	1.2	1.1
BF-RFNTA 206 - 188	287 - 108.5*	8.2	6.8	5.6	4.6	4.2	3.6	3.1
BF-RFNTA 256 - 188	136.5 - 60*	3.9	3.2	2.7	2.4	2.2	1.8	1.4

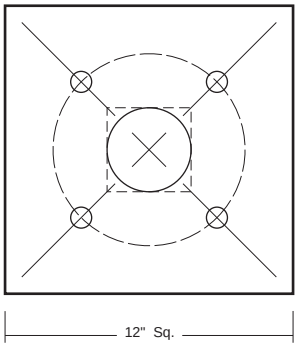
Please use the following to obtain the proper weight capacity:
The maximum fixture weight equals 60 lbs., or the product of 35 lbs. x the EPA value (from the chart above), whichever is greater, not to exceed 300 lbs.
Example, EPA = 2.2, maximum fixture weight = 35 lbs. x 2.2 EPA = 77 lbs.

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.

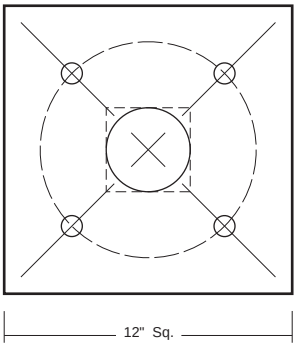
To mitigate 2nd Mode (Aeolian) Vibration please read the following Recommendations:
- We do not recommend the installation of poles without a fixture; such installations have been known to fail due to destructive 2nd mode pole vibration.
- Pole installations with a combined (fixtures, banners, flags, 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.
- Blackforge offers a 2nd Mode Vibration Dampener VBDS-M2 for purchase as a field-installable option.

ANCHOR BOLT TEMPLATES

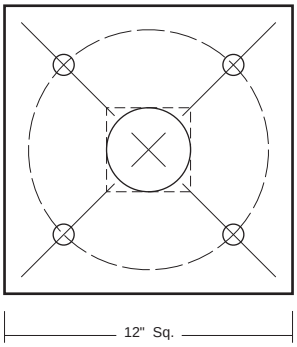
BF8
8" Bolt Circle



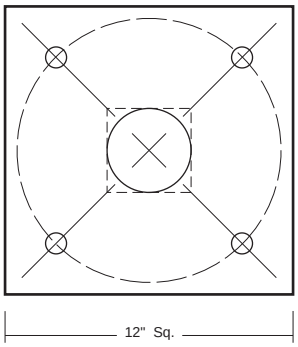
BF9
9" Bolt Circle



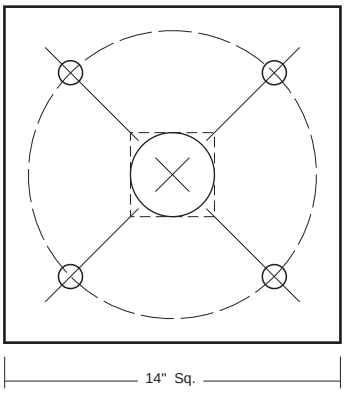
BF10
10" Bolt Circle



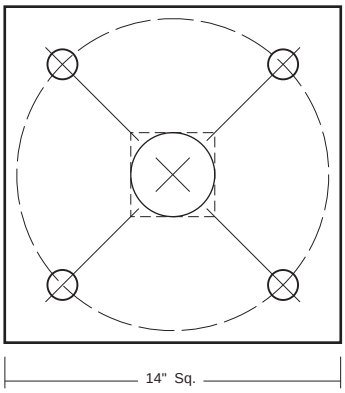
BF11
11" Bolt Circle



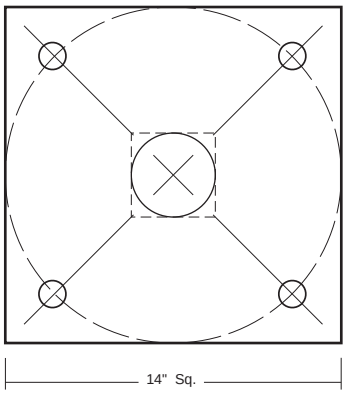
BF12
12" Bolt Circle



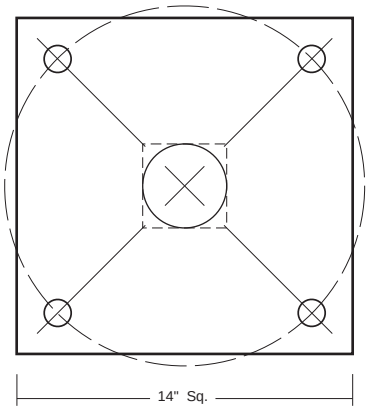
BF13
13" Bolt Circle



BF14
14" Bolt Circle



BF15
15" Bolt Circle



BF16
16" Bolt Circle