

SPECIFICATIONS

Shaft

Round, fabricated from high grade structural steel tube. Shaft conforms to ASTM-A-501-68 specifications. Meets or exceeds minimum yield strength of 46,000 P.S.I. Wall thickness 11 GA. (.120 wall) or 7 GA. (.180 wall) as specified. Shaft is furnished with ground lug located inside pole on wall opposite hand hole.

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.) steel pipe - tenon options available for pole tops please see Mounting column. For other pole top configurations please consult factory.

Hand Hole Cover

Steel Poles 15 feet and above - Supplied with reinforced steel 2 5/8" x 4 5/8" access opening. Hand Hole provided with rectangular 3"x5" stamped heavy gauge aluminum material, Sealed door is secured by a formed aluminum bar and a stainless steel, tamper proof screw.

Poles under 15 feet - Rectangular 3"x5" stamped heavy gauge aluminum material, 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

Fabricated from structural quality hot rolled steel. Meets or exceeds minimum yield strength of 36,000 P.S.I. Base telescopes and is circumferentially welded to pole shaft. Slotted bolt holes provide 1" flexibility on either side of bolt circle centerline.

Anchorage

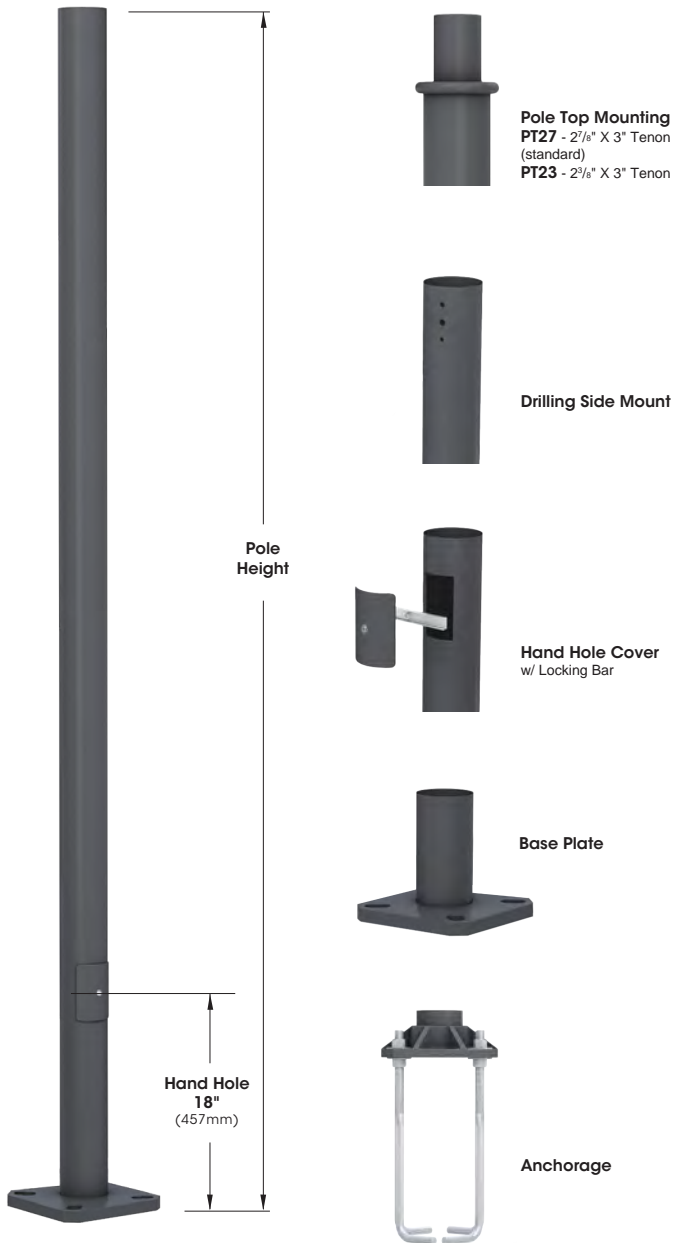
(4) anchor bolts fabricated from hot rolled steel bar. Minimum yield strength of 50,000 P.S.I. Bolts have "L" bend on one end and are threaded on the other. Bolts are fully galvanized and are furnished with two nuts and two washers.

Base Cover

Fabricated from heavy gauge quality carbon steel. Two-piece cover conceals base.

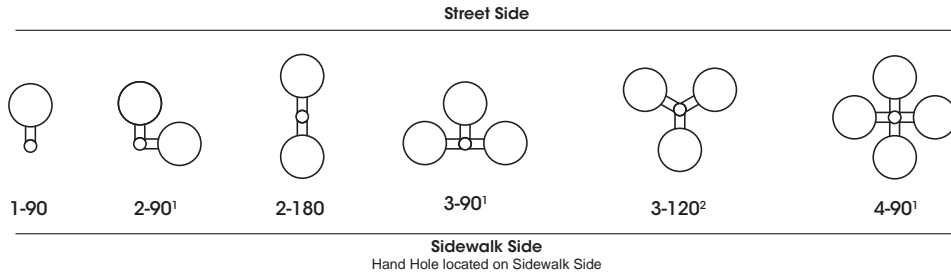
Finish

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.



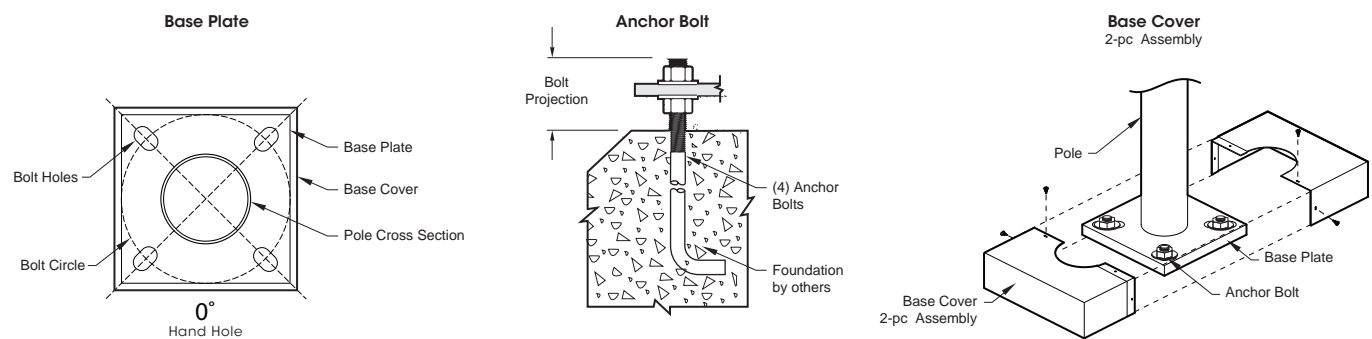
Pole Model	Pole Dia.	Pole Height
BF-RNTS4	4"	10' - 24'
BF-RNTS5	5"	16' - 25'
BF-RNTS6	6"	18' - 25'

DRILLING SIDE MOUNT



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]

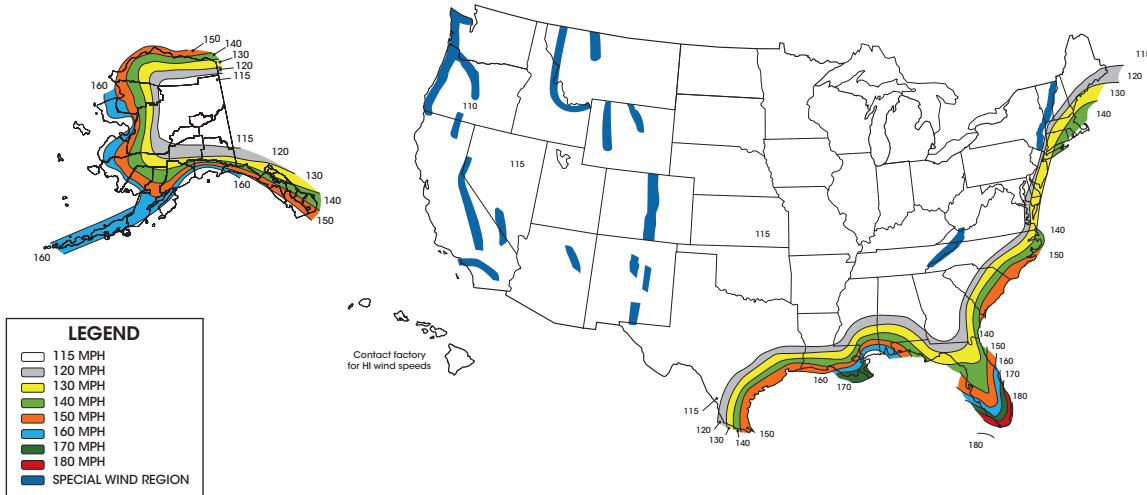
BOLT CIRCLE



Catalog Number	POLE							ANCHOR BOLTS				ANCHOR PLATE			
	Height		Bottom - Top				Wall Thickness (In/Ga)	Weight (Lbs)	Bolt Size	Bolt Projection above grade ^{2,3}	Bolt Circle Dia Range ¹	Bolt Circle Dia (In) (Rec.) ¹	Template	Base Plate	Cover
	Ft	M	In	Cm	In	Cm									
BF-RNTS 104-11	10	3.05	4.00	4.00	10.16	10.16	11	66	3/4" x 18" x 3"	3/4" - 3/4"	8" - 11"	9"	BF9	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 124-11	12	3.66	4.00	4.00	10.16	10.16	11	76	3/4" x 18" x 3"	3/4" - 3/4"	8" - 11"	9"	BF9	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 144-11	14	4.27	4.00	4.00	10.16	10.16	11	86	3/4" x 18" x 3"	3/4" - 3/4"	8" - 11"	9"	BF9	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 164-11	16	4.88	4.00	4.00	10.16	10.16	11	96	3/4" x 18" x 3"	3/4" - 3/4"	8" - 11"	9"	BF9	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 184-11	18	5.49	4.00	4.00	10.16	10.16	11	106	3/4" x 18" x 3"	3/4" - 3/4"	8" - 11"	9"	BF9	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 204-11	20	6.10	4.00	4.00	10.16	10.16	11	116	3/4" x 24" x 3"	3/4" - 3/4"	8" - 11"	10"	BF10	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 204-7	20	6.10	4.00	4.00	10.16	10.16	7	163	3/4" x 30" x 3"	3/4" - 3/4"	8" - 11"	11"	BF11	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 244-7	24	7.32	4.00	4.00	10.16	10.16	7	192	3/4" x 30" x 3"	3/4" - 3/4"	8" - 11"	11"	BF11	3/4" x 10" x 10"	5" x 12" x 12"
BF-RNTS 165-11	16	4.88	5.00	5.00	12.70	12.70	11	129	1" x 36" x 4"	4" - 4 1/2"	10 1/2" - 12 1/2"	12"	BF12	1" x 11 1/2" x 11 1/2"	5" x 12" x 12"
BF-RNTS 185-11	18	5.49	5.00	5.00	12.70	12.70	11	142	1" x 36" x 4"	4" - 4 1/2"	10 1/2" - 12 1/2"	12"	BF12	1" x 11 1/2" x 11 1/2"	5" x 12" x 12"
BF-RNTS 185-7	18	5.49	5.00	5.00	12.70	12.70	7	196	1" x 36" x 4"	4" - 4 1/2"	10 1/2" - 12 1/2"	12"	BF12	1" x 11 1/2" x 11 1/2"	5" x 12" x 12"
BF-RNTS 205-11	20	6.10	5.00	5.00	12.70	12.70	11	154	1" x 36" x 4"	4" - 4 1/2"	10 1/2" - 12 1/2"	12"	BF12	1" x 11 1/2" x 11 1/2"	5" x 12" x 12"
BF-RNTS 205-7	20	6.10	5.00	5.00	12.70	12.70	7	215	1" x 36" x 4"	4" - 4 1/2"	10 1/2" - 12 1/2"	12"	BF12	1" x 11 1/2" x 11 1/2"	5" x 12" x 12"
BF-RNTS 255-11	25	7.62	5.00	5.00	12.70	12.70	11	186	1" x 36" x 4"	4" - 4 1/2"	10 1/2" - 12 1/2"	12"	BF12	1" x 11 1/2" x 11 1/2"	5" x 12" x 12"
BF-RNTS 255-7	25	7.62	5.00	5.00	12.70	12.70	7	261	1" x 36" x 4"	4" - 4 1/2"	10 1/2" - 12 1/2"	12"	BF12	1" x 11 1/2" x 11 1/2"	5" x 12" x 12"
BF-RNTS 186-7	18	5.49	6.00	6.00	15.24	15.24	7	241	1" x 36" x 4"	4" - 4 1/2"	11 1/2" - 14 1/2"	12"	BF12	1" x 13 1/2" x 13 1/2"	5" x 14" x 14"
BF-RNTS 206-7	20	6.10	6.00	6.00	15.24	15.24	7	263	1" x 36" x 4"	4" - 4 1/2"	11 1/2" - 14 1/2"	12"	BF12	1" x 13 1/2" x 13 1/2"	5" x 14" x 14"
BF-RNTS 256-7	25	7.62	6.00	6.00	15.24	15.24	7	319	1" x 36" x 4"	4" - 4 1/2"	11 1/2" - 14 1/2"	12"	BF12	1" x 13 1/2" x 13 1/2"	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.

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
BF-RNTS 104-11	300 - 252*	15.0	15.0	15.0	15.0	14.4	12.4	10.6	9.0	8.2	7.2
BF-RNTS 124-11	300 - 182*	15.0	15.0	15.0	13.6	11.2	9.6	7.8	6.8	6.2	5.2
BF-RNTS 144-11	300 - 143.5*	15.0	13.5	12.1	10.9	9.1	7.5	6.3	5.1	4.7	4.1
BF-RNTS 164-11	300 - 87.5*	13.1	10.3	9.1	8.1	6.7	5.1	4.1	3.5	3.3	2.5
BF-RNTS 184-11	300 - 66.5*	10.9	8.3	7.3	6.7	4.9	3.7	2.9	2.7	2.3	1.9
BF-RNTS 204-11	300 - 60*	9.0	7.0	5.8	5.0	3.6	2.6	1.8	1.4	1.3	1.2
BF-RNTS 204-7	300 - 105*	15.0	14.0	12.1	9.4	7.8	6.4	4.8	4.2	3.6	3.0
BF-RNTS 244-7	300 - 60*	10.2	8.0	6.3	5.0	3.9	3.0	2.2	1.8	1.5	0.9
BF-RNTS 165-11	300 - 262.5*	15.0	15.0	15.0	15.0	15.0	13.3	10.7	9.1	7.5	
BF-RNTS 185-11	300 - 182*	15.0	15.0	15.0	15.0	15.0	12.8	10.0	8.0	6.6	5.2
BF-RNTS 185-7	300 - 217*	15.0	15.0	15.0	15.0	14.6	12.2	9.6	8.0	6.2	
BF-RNTS 205-11	300 - 129.5*	15.0	12.5	10.9	9.1	7.8	6.6	5.5	4.8	4.3	3.7
BF-RNTS 205-7	300 - 154*	15.0	15.0	15.0	15.0	14.8	12.0	9.2	7.2	5.8	4.4
BF-RNTS 255-11	300 - 60*	9.4	6.8	5.4	5.0	4.0	3.2	2.6	1.8	1.8	1.4
BF-RNTS 255-7	300 - 126*	15.0	12.6	10.8	9.6	8.2	6.8	5.8	4.6	4.2	3.6
BF-RNTS 186-7	300	15.0	15.0	15.0	15.0	15.0	15.0	13.5	12.1	10.5	
BF-RNTS 206-7	300	15.0	15.0	15.0	15.0	15.0	15.0	13.6	11.8	10.4	9.2
BF-RNTS 256-7	300	15.0	15.0	15.0	15.0	15.0	15.0	14.2	12.0	10.2	8.8

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
BF-RNTS 104-11	300 - 154*	8.6	7.8	7.1	6.5	5.5	5.0	4.4
BF-RNTS 124-11	224 - 112*	6.4	5.8	5.3	4.8	4.2	3.8	3.2
BF-RNTS 144-11	179 - 87.5*	5.1	4.7	4.2	3.9	3.1	2.9	2.5
BF-RNTS 164-11	115.5 - 60*	3.3	3.0	2.8	2.5	2.1	2.0	1.5
BF-RNTS 184-11	84 - 60*	2.4	2.1	2.0	1.8	1.7	1.4	1.2
BF-RNTS 204-11	168 - 60*	4.8	3.4	2.5	1.7	1.3	1.2	1.1
BF-RNTS 204-7	300 - 101.5*	8.9	7.4	6.1	4.6	4.0	3.4	2.9
BF-RNTS 244-7	168 - 60*	4.8	3.7	2.9	2.1	1.7	1.4	0.9
BF-RNTS 165-11	300 - 161*	10.8	9.8	9.0	8.1	6.5	5.6	4.6
BF-RNTS 185-11	283.5 - 112*	8.1	7.4	6.7	6.1	4.9	4.0	3.2
BF-RNTS 185-7	300 - 133*	9.9	9.0	8.2	7.5	5.9	4.9	3.8
BF-RNTS 205-11	300 - 122.5*	8.6	7.4	6.3	5.2	4.6	4.1	3.5
BF-RNTS 205-7	262.5 - 94.5*	7.5	6.8	6.2	5.6	4.4	3.5	2.7
BF-RNTS 255-11	73.5 - 60*	2.1	1.9	1.8	1.6	1.4	1.1	0.9
BF-RNTS 255-7	164.5 - 77*	4.7	4.3	3.9	3.5	3.0	2.6	2.2
BF-RNTS 186-7	300 - 224*	12.2	11.1	10.1	9.2	8.3	7.4	6.4
BF-RNTS 206-7	300 - 196*	11.1	10.1	9.2	8.3	7.2	6.4	5.6
BF-RNTS 256-7	238 - 112*	6.8	6.2	5.7	5.1	4.3	3.7	3.2

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.

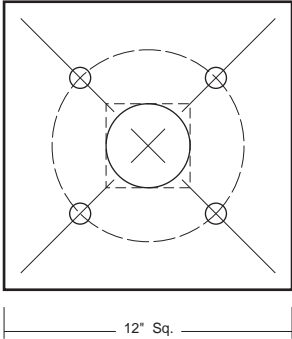
- Notes**
- Specifier is responsible for correct pole selection. For proper pole choice, the specifier must consider the total EPA of fixtures, banners, arms, and any other accessories attached to pole assembly.
 - ALL EPAs are calculated for ground installations. For installations on bridges, buildings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

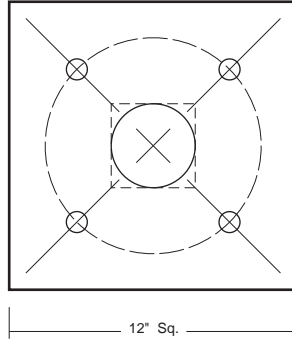
- We do not recommend the installation of poles without a fixture; such installations have been known to fail due to destructive 2nd mode pole vibration.
- Pole installations with a combined (fixtures, banners, flags, etc.) EPA of less than 2.0 ft² and 20 feet or taller are strongly recommended to be 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

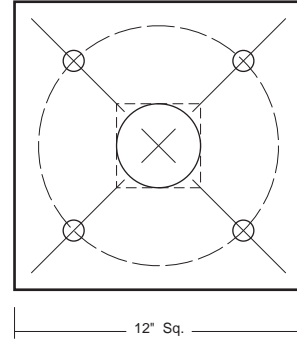
BF8
8" Bolt Circle



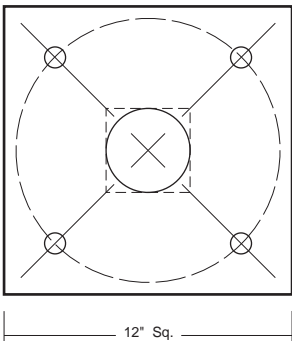
BF9
9" Bolt Circle



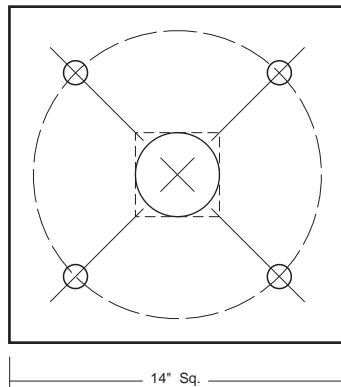
BF10
10" Bolt Circle



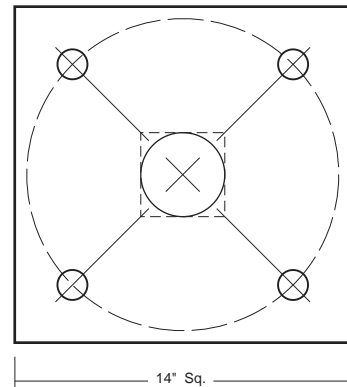
BF11
11" Bolt Circle



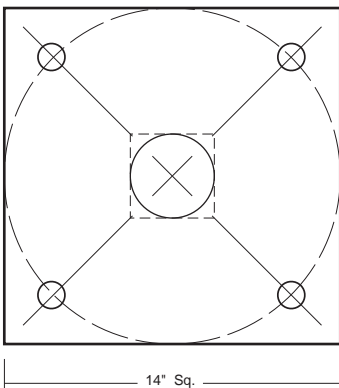
BF12
12" Bolt Circle



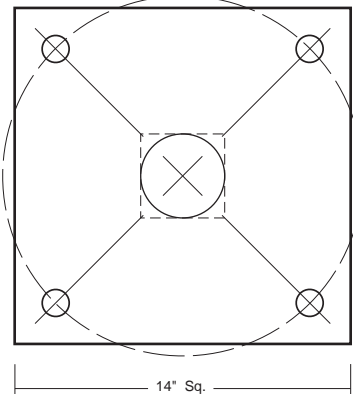
BF13
13" Bolt Circle



BF14
14" Bolt Circle



BF15
15" Bolt Circle



BF16
16" Bolt Circle

