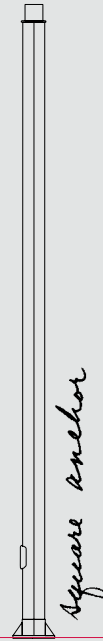
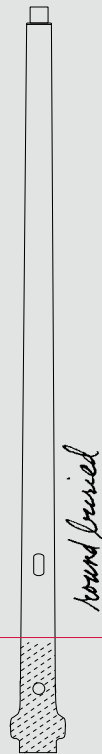
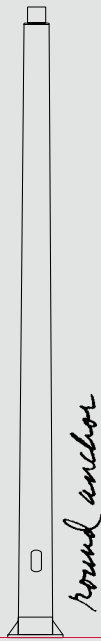


ROUND & SQUARE COMPOSITE TUFF-POLES®

SPECIFICATIONS MANUAL



S H A K E S P E A R E  
COMPOSITE STRUCTURES



## COMPOSITE TUFF-POLE®

Since the 1960s, Shakespeare Composite Structures has pioneered composite pole technologies with design innovations and patented techniques that have revolutionized the entire lighting standard industry. Shakespeare's next-generation fiberglass reinforced composite Tuff-Poles® easily withstand the harshest climates, supporting heavy loads, and resisting high sustained winds, all with minimal maintenance.

Tuff-Poles® are the result of a complete re-engineering and retooling of the manufacturing processes for composite poles, plus advanced, computer-assisted modeling, process monitoring, and controls. The result is a lighter, stronger, better looking pole built to tighter manufacturing tolerances, and employing high-performance coatings for extended UV protection.

Over the years, Shakespeare's engineers and designers have developed an extensive array of styles and features that specifically address commercial, architectural, and roadway applications - from simple yard lights to massive 47-footers capable of withstanding literally hurricane-force winds. Our composite SportsLighting poles can reach 125 feet, supporting enormous lighting assemblies. Shakespeare Composite Structures can supply the composite light poles you want. This Specifications Manual details the features, dimensions, finishes, options, and accessories in our Square and Round Tapered lines.

We make every effort to tailor light poles to our customers' needs, including location of handholes, mounting brackets, colors, finishes, arms, tenons, and accommodation of a variety of luminaires and attachments. With so many choices, it has become impractical to list them all here. If you have a special need, and especially if you're trying to match a Shakespeare composite pole from years past, if you don't find it here, just call.

### TABLE OF CONTENTS

The Shakespeare Composite Structures Story	2
The Composite Tuff-Pole® Advantage	4
How to Order (Catalog Numbering)	5
Sample Specification	6
Suggested Installation (Anchor Base)	8
Suggested Installation (Direct Burial)	9
Colors and Finishes	11
Straight Square Poles, Anchor Base	13
Straight Square and Tapered Square Poles	
Direct Burial Base	14
Round Tapered Poles	
Tenon Top Anchor Base and Direct Burial	18
Capped and Tenon Top Anchor Base	20
Capped and Tenon Top Direct Burial	21
Mast Arm Poles	24
Breakaway Poles	42
Mast Arm Breakaway Poles	46
Options and Accessories	
Shrouds and Bolt Covers	64
Mast Arms and Hardware Kits for Mast Arms	65
Side Mount Brackets	66
Tenon Mount and Bullhorn Brackets	67
Composite Burial Foot	68
Tuff-Protector Pole Guard	72

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#### In a hurry?

Our Quick Ship program includes the most frequently ordered pole configurations. Ask for details.

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# Square Tuff-Poles<sup>®</sup>



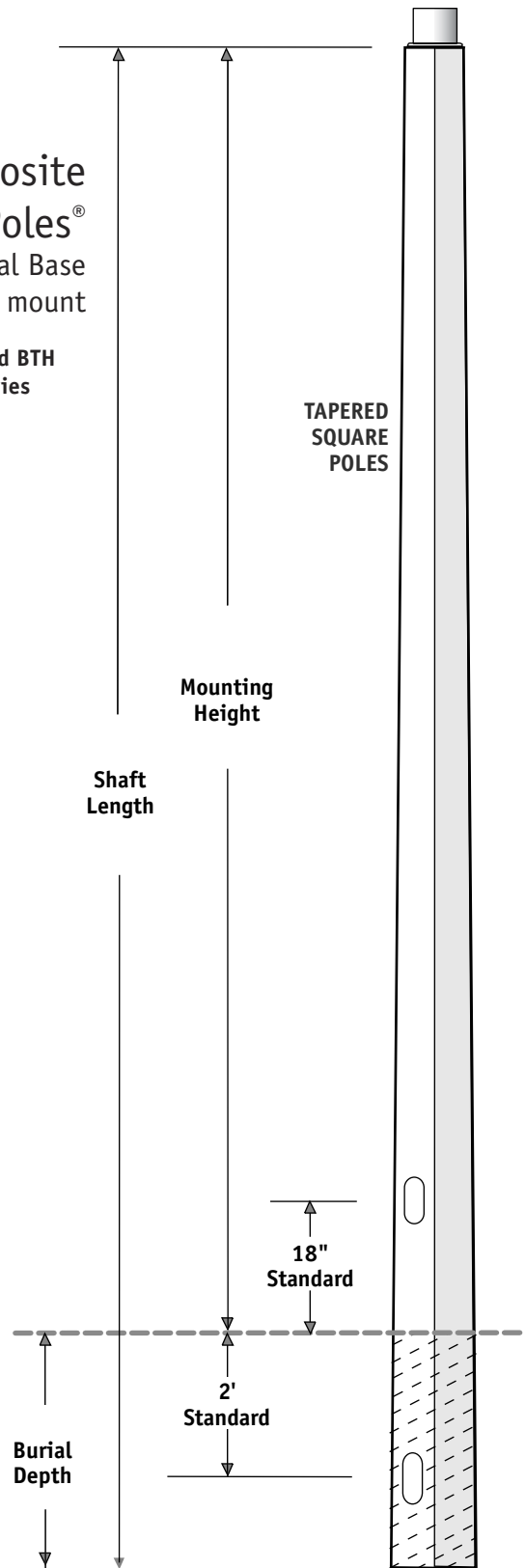


**Tapered Square Composite  
Tuff-Poles®**  
BT, and BTH, Series, Direct Burial Base  
Tenon Top or Side mount



BT and BTH  
Series

TAPERED  
SQUARE  
POLES



Anchor Base  
and Direct Burial

Capped  
and Tenon Top

Straight Square  
and Tapered Square

Page  
Square Poles 13-16

Series: \_\_\_\_\_

- |     |     |
|-----|-----|
| AQ  | BQ  |
| AR  | BR  |
| SSA | SSB |
|     | BT  |
|     | BTH |

Shakespeare Composite Structures calculates all EPA recommendations based on poles with handholes, and allowing for a 30% gust factor for *all* wind ratings, including 120mph.

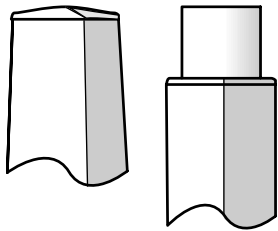
# Straight Square Poles

AQ, SSA, and AR: Anchor Base; BQ, SSB, and BR Direct Burial

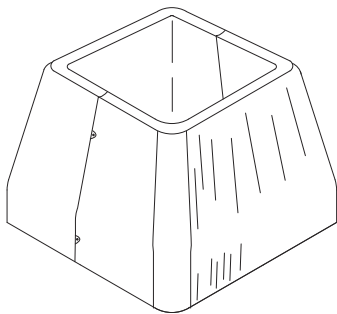
Tenon Top or Side Mount



Straight Square Poles offer the contemporary look favored by today's architects, engineers, and planners. Virtually maintenance free, square Tuff-Poles® have the same ease of installation as the traditional round tapered poles.

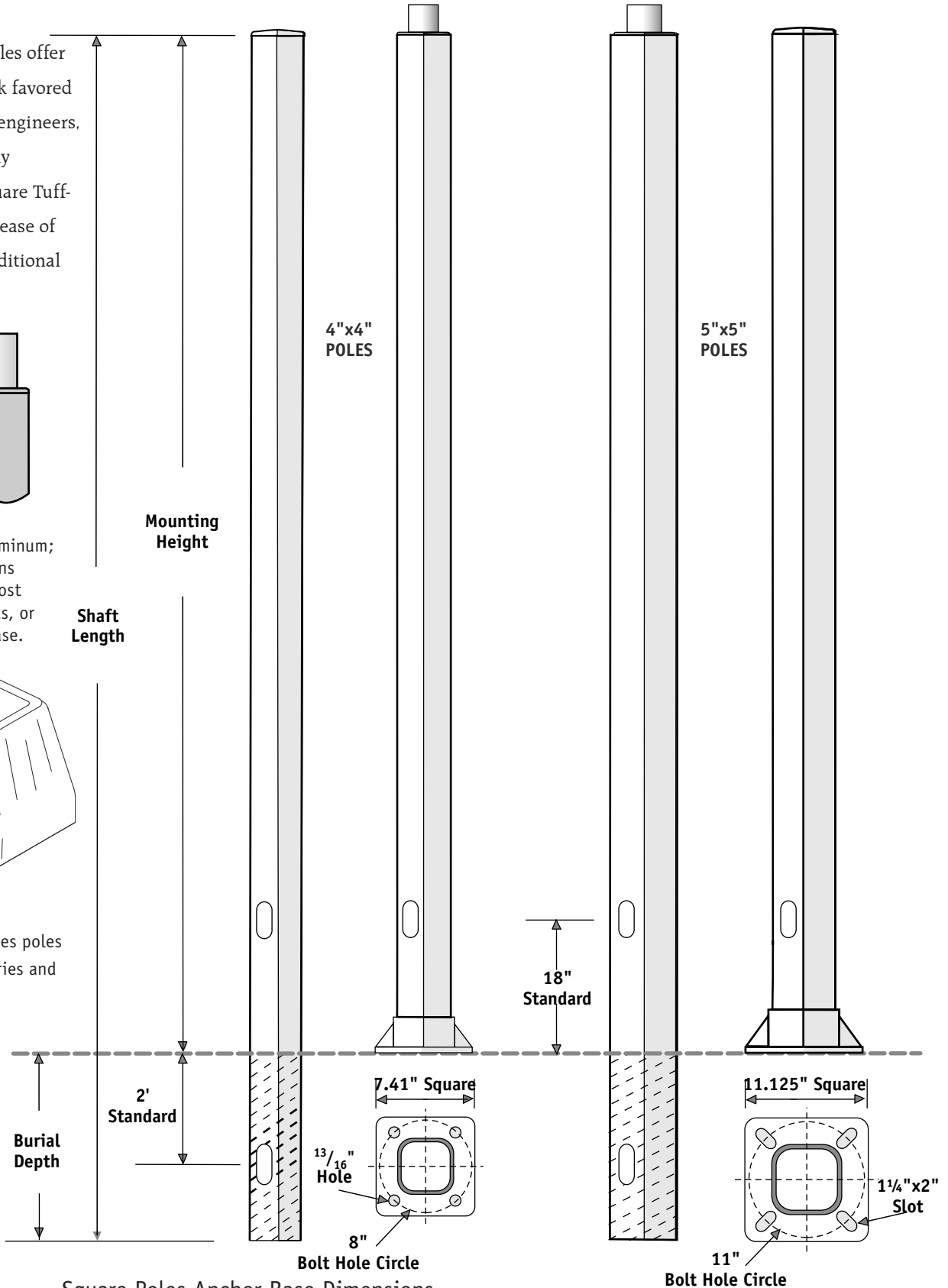


TENONS:  $2\frac{3}{8}$ " or 3" OD. Tenons are A356-T6 aluminum; for other optional tenons contact Shakespeare. Post top fixtures, flood lights, or brackets mount with ease.



SQUARE SHROUDS: OPSH-AQ for all AQ Series poles  
OPSH-AR for all SSA Series and AR Series poles

ANCHOR BASE: Cast A356-T6 aluminum, polyurethane coated to match pole color. Hot dipped galvanized steel anchor bolts complete with nuts (2) and washers (2) are supplied standard ( $\frac{5}{8}$ " x 21" x 3" for 4"x4" poles, 1" x 30" x 4" for 5"x5" poles).



Square Poles Anchor Base Dimensions

Series	Bolt Hole Circle	Hole/Slot	Mounting Heights
4x4 Poles (AQ, BQ)	8"	$\frac{13}{16}$ "	6' to 25'
5x5 Poles (AR, BR, SSA, SSB)	11"	1 $\frac{1}{4}$ "x2"	6' to 30'

# Straight Square Composite Tuff-Poles®

AQ, SSA, and AR, Series, Anchor Base

Tenon Top or Side mount

**COMPOSITE  
TUFF-POLE**

Nominal Mounting Height (ft.)	Shaft Length (ft.)	Pole Weight (lbs.)	POLE DIAMETER		Standard Handhole Location from Base (in.)	SUGGESTED MAXIMUM TOTAL LOADING					Bolt Hole Circle (in.)	BASIC CATALOG NUMBER	Comment
			Shaft Top (in.)	Shaft Base (in.)		Total Weight (lbs.)	80 MPH EPA* (sq. ft.)	90 MPH EPA* (sq. ft.)	100 MPH EPA* (sq. ft.)	120 MPH EPA* (sq. ft.)			

**Straight Square 4" x 4" Anchor Base, Series AQ - STANDARD DUTY**

6	6	18	4	4	18	150	20.0	20.0	20.0	18.7	8	<b>AQ06</b>	Smooth, bronze
8	8	23	4	4	18	150	20.0	20.0	20.0	13.8	8	<b>AQ08</b>	Smooth, bronze
10	10	27	4	4	18	150	20.0	20.0	16.1	10.5	8	<b>AQ10</b>	Smooth, bronze
12	12	31	4	4	18	150	20.0	16.4	12.8	8.1	8	<b>AQ12</b>	Smooth, bronze
14	14	35	4	4	18	150	14.2	10.7	8.2	4.9	8	<b>AQ14</b>	Smooth, bronze
15	15	37	4	4	18	150	13.0	9.7	7.3	4.3	8	<b>AQ15</b>	Smooth, bronze
16	16	39	4	4	18	150	11.9	8.8	6.5	3.7	8	<b>AQ16</b>	Smooth, bronze
18	18	43	4	4	18	150	9.9	7.2	5.2	2.6	8	<b>AQ18</b>	Smooth, bronze
20	20	47	4	4	18	150	8.3	5.8	4.0	1.6	8	<b>AQ20</b>	Smooth, bronze
25	25	57	4	4	18	150	5.0	3.0	1.5	--	8	<b>AQ25</b>	Smooth, bronze

**Straight Square 5" x 5" Anchor Base, Series SSA - MEDIUM DUTY**

10	10	56	5	5	18	300	41.0	32.0	25.6	17.2	11	<b>SSA5-10</b>	Smooth, bronze
15	15	79	5	5	18	300	21.3	16.3	12.8	8.2	11	<b>SSA5-15</b>	Smooth, bronze
20	20	102	5	5	18	300	14.9	11.1	8.4	4.9	11	<b>SSA5-20</b>	Smooth, bronze
25	25	125	5	5	18	300	10.6	7.6	5.4	2.6	11	<b>SSA5-25</b>	Smooth, bronze
30	30	148	5	5	18	300	5.7	3.4	1.7	--	11	<b>SSA5-30</b>	Smooth, bronze

**Straight Square 5" x 5" Anchor Base, Series AR - HEAVY DUTY**

6	6	41	5	5	18	300	99.4	78.2	63.1	43.3	11	<b>AR06</b>	Smooth, bronze
8	8	51	5	5	18	300	76.4	59.9	48.1	33.7	11	<b>AR08</b>	Smooth, bronze
10	10	61	5	5	18	300	61.5	48.0	38.4	25.8	11	<b>AR10</b>	Smooth, bronze
12	12	71	5	5	18	300	58.0	39.6	31.4	20.8	11	<b>AR12</b>	Smooth, bronze
14	14	82	5	5	18	300	34.5	26.6	21.0	13.6	11	<b>AR14</b>	Smooth, bronze
15	15	87	5	5	18	300	31.9	24.5	19.2	12.3	11	<b>AR15</b>	Smooth, bronze
18	18	102	5	5	18	300	25.9	19.4	14.9	9.1	11	<b>AR18</b>	Smooth, bronze
20	20	113	5	5	18	300	22.3	16.7	12.6	7.4	11	<b>AR20</b>	Smooth, bronze
25	25	138	5	5	18	300	15.9	11.4	8.1	3.9	11	<b>AR25</b>	Smooth, bronze
30	30	164	5	5	18	300	8.6	5.1	2.6	--	11	<b>AR30</b>	Smooth, bronze

**AQ Series - Standard Duty**

- 4" x 4" Straight Square design
- Mounting heights to 25'
- Smooth finish
- Bronze color standard, architectural colors available.
- Tenon Top or Capped for side drilling

Anchor bolts #OPAB-1025, 5/8" x 21" x 3" (4 per set) included.

Standard fixture attachment: Capped.

Standard color: Dark Bronze.

Optional Base Cover: OPSH-AQ-5 (Dark Bronze color). For other colors, contact factory.

**SSA Series - Medium Duty**

- 5" x 5" Straight Square design
- Mounting heights to 30'
- Smooth finish
- Bronze color standard, architectural colors available
- Tenon Top or Capped for side drilling

Anchor bolts #OPAB-2035, 1" x 30" x 4" (4 per set) included.

Standard fixture attachment: Capped.

Standard color: Dark Bronze.

Optional Base Cover (2-piece), order OPSH-AR-5 (Dark Bronze color). For other colors, contact factory.

**AR Series - Heavy Duty**

- 5" x 5" Straight Square design
- Mounting heights to 30'
- Smooth finish
- Bronze color standard, architectural colors available
- Tenon Top or Capped for side drilling

Anchor bolts #OPAB-2035, 1" x 30" x 4" (4 per set) included.

Standard fixture attachment: Capped.

Standard color: Dark Bronze.

Optional Base Cover (2-piece), order OPSH-AR-5 (Dark Bronze color). For other colors, contact factory.

■ Standard handhole: 2 1/2" x 5" oval. All handhole covers are polyurethane coated to match pole color. ■ EPA ratings are the same for capped or tenon top poles. ■ Poles can be predrilled for bolt-on side mount fixture(s), arms, brackets, etc.

\*All EPA recommendations are based on poles with handholes, and allowing for a 30% gust factor for all wind ratings.

# Straight Square and Tapered Square Composite Tuff-Poles®

BQ, SSB, BR, BT, and BTH, Series, Direct Burial Base

Tenon Top or Side mount



Nominal Mounting Height (ft.)	Shaft Length (ft.)	Pole Weight (lbs.)	POLE DIAMETER		Standard Handhole Location from Base (in.)	SUGGESTED MAXIMUM TOTAL LOADING					Suggested Burial Depth (ft.)	BASIC CATALOG NUMBER	Comment
			Shaft Top (in.)	Shaft Base (in.)		Total Weight (lbs.)	80 MPH EPA* (sq. ft.)	90 MPH EPA* (sq. ft.)	100 MPH EPA* (sq. ft.)	120 MPH EPA* (sq. ft.)			

### Straight Square 4" x 4" Direct Burial Base, Series BQ - STANDARD DUTY

6	8	17	4	4	42	150	20.0	20.0	20.0	18.7	2	<b>BQ08</b>	Smooth, bronze
8	10	22	4	4	42	150	20.0	20.0	20.0	13.8	2	<b>BQ10</b>	Smooth, bronze
10	13	28	4	4	54	150	20.0	20.0	16.1	10.5	3	<b>BQ13</b>	Smooth, bronze
12	15	32	4	4	54	150	20.0	16.4	12.8	8.1	3	<b>BQ15</b>	Smooth, bronze
14	18	37	4	4	66	150	14.2	10.7	8.2	4.9	4	<b>BQ18</b>	Smooth, bronze
15	19	40	4	4	66	150	13.0	9.7	7.3	4.3	4	<b>BQ19</b>	Smooth, bronze
16	20	43	4	4	66	150	11.9	8.8	6.5	3.7	4	<b>BQ20</b>	Smooth, bronze
18	22	49	4	4	66	150	9.9	7.2	5.2	2.6	4	<b>BQ22</b>	Smooth, bronze
20	25	55	4	4	78	150	8.3	5.8	4.0	1.6	5	<b>BQ25</b>	Smooth, bronze
25	30	70	4	4	78	150	5.0	3.0	1.5	--	5	<b>BQ30</b>	Smooth, bronze

### Straight Square 5" x 5" Direct Burial Base, Series SSB - MEDIUM DUTY

10	13	61	5	5	54	300	41.0	32.0	25.6	17.2	3	<b>SSB5-13</b>	Smooth, bronze
15	19	88	5	5	66	300	21.3	16.3	12.8	8.2	4	<b>SSB5-19</b>	Smooth, bronze
20	25	112	5	5	78	300	14.9	11.1	8.4	4.9	5	<b>SSB5-25</b>	Smooth, bronze
25	30	140	5	5	78	300	10.6	7.6	5.4	2.6	5	<b>SSB5-30</b>	Smooth, bronze
30	35	164	5	5	78	300	5.7	3.4	1.7	--	5	<b>SSB5-35</b>	Smooth, bronze

### Straight Square 5" x 5" Direct Burial Base, Series BR - HEAVY DUTY

10	13	67	5	5	54	300	61.5	48.0	38.4	25.8	3	<b>BR13</b>	Smooth, bronze
15	19	97	5	5	66	300	31.0	21.0	18.0	11.1	4	<b>BR19</b>	Smooth, bronze
20	25	123	5	5	78	300	22.3	16.7	12.6	7.4	5	<b>BR25</b>	Smooth, bronze
25	30	154	5	5	78	300	15.9	11.4	8.1	3.9	5	<b>BR30</b>	Smooth, bronze
30	35	180	5	5	78	300	8.6	5.1	2.6	--	5	<b>BR35</b>	Smooth, bronze

### Tapered Square Direct Burial Base, Series BT and BTH

10	13	32	4.4	5.7	54	200	23.2	16.9	13.1	8.1	3	<b>BT13</b>	Natural, bronze
12	15	37	4.4	5.9	54	200	17.2	12.7	9.5	5.4	3	<b>BT15</b>	Natural, bronze
14	18	44	4.4	6.1	66	200	13.1	9.4	6.7	3.2	4	<b>BT18</b>	Natural, bronze
16	20	49	4.4	6.3	66	200	8.0	5.4	3.5	1.1	4	<b>BT20</b>	Natural, bronze
18	22	54	4.4	6.5	66	200	5.9	3.6	1.9	--	4	<b>BT22</b>	Natural, bronze
20	24	58	4.4	6.8	66	200	4.1	2.1	0.6	--	4	<b>BT24</b>	Natural, bronze
20	24	88	4.6	7.0	66	200	12.9	9.0	6.2	2.5	4	<b>BTH24</b>	Natural, bronze

#### BQ Series - Standard Duty

- 4" x 4" Straight Square design
- Mounting heights to 25'
- Smooth finish
- Bronze color standard, architectural colors available
- Tenon Top or Capped for side drilling

#### SSB Series - Medium Duty

- 5" x 5" Straight Square design
- Mounting heights to 30'
- Smooth finish
- Bronze color standard, architectural colors available
- Tenon Top or Capped for side drilling

#### BR Series - Heavy Duty

- 5" x 5" Straight Square design
- Mounting heights to 30'
- Smooth finish
- Bronze color standard, architectural colors available
- Tenon Top or Capped for side drilling

#### BT and BTH Series

##### Tapered Square

- Tapered Square design
- Mounting heights 10' to 20'
- Natural (textured) finish
- Bronze color standard, architectural colors available
- Tenon Top or Capped for side drilling
- Standard color: Dark Bronze

■ Standard handhole: 2½" x 5" oval. All handhole covers are polyurethane coated to match pole color. ■ EPA ratings are the same for capped or tenon top poles. ■ Poles can be predrilled for bolt-on side mount fixture(s), arms, brackets, etc.

\*All EPA recommendations are based on poles with handholes, and allowing for a 30% gust factor for all wind ratings.





Shakespeare Composite Structures is a Philips Group Brand.

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