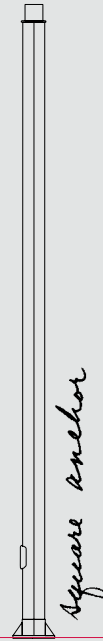
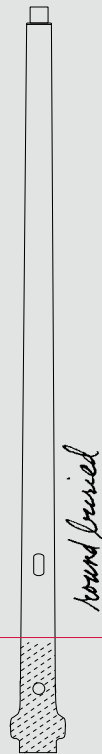
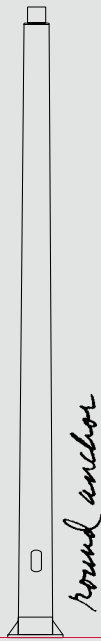


ROUND & SQUARE COMPOSITE TUFF-POLES®

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.

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In a hurry?

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

Square Tuff-Poles[®]



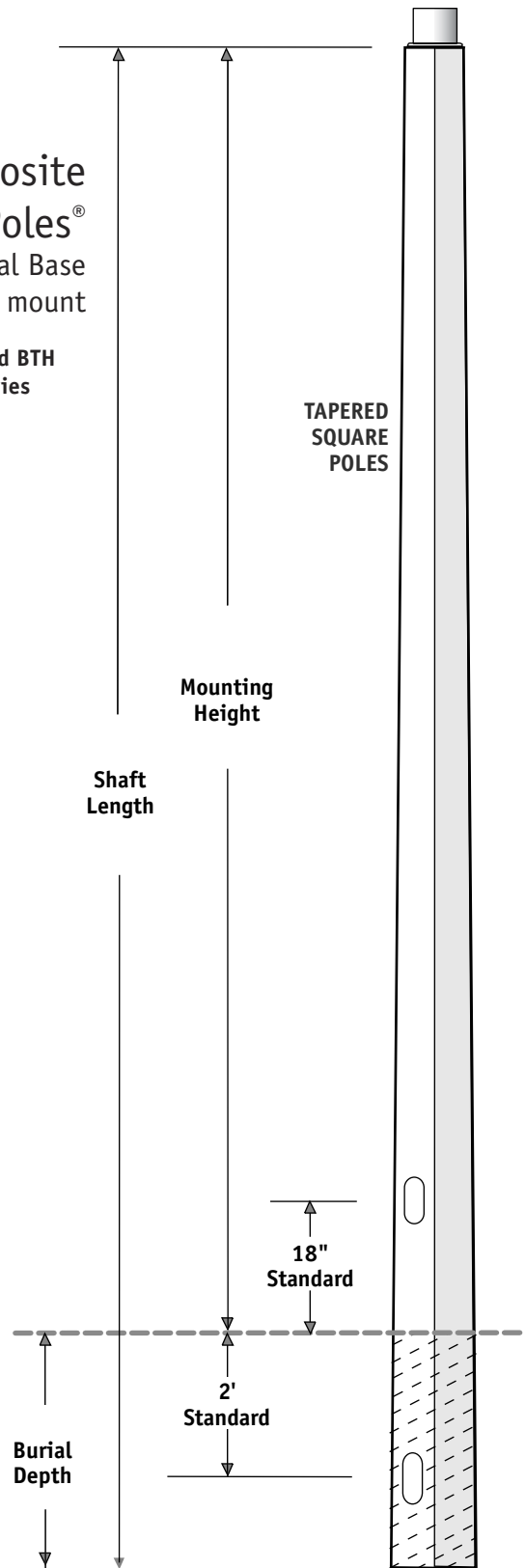


**Tapered Square Composite
Tuff-Poles®**
BT, and BTH, Series, Direct Burial Base
Tenon Top or Side mount



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.

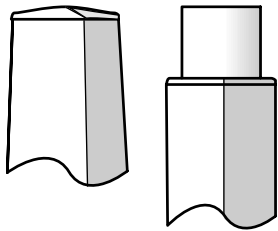
Straight Square Poles

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

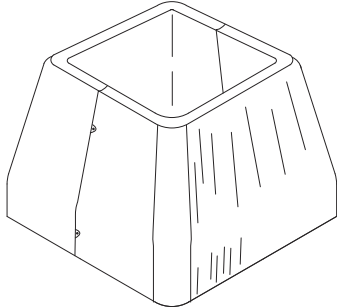
Tenon Top or Side Mount



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.

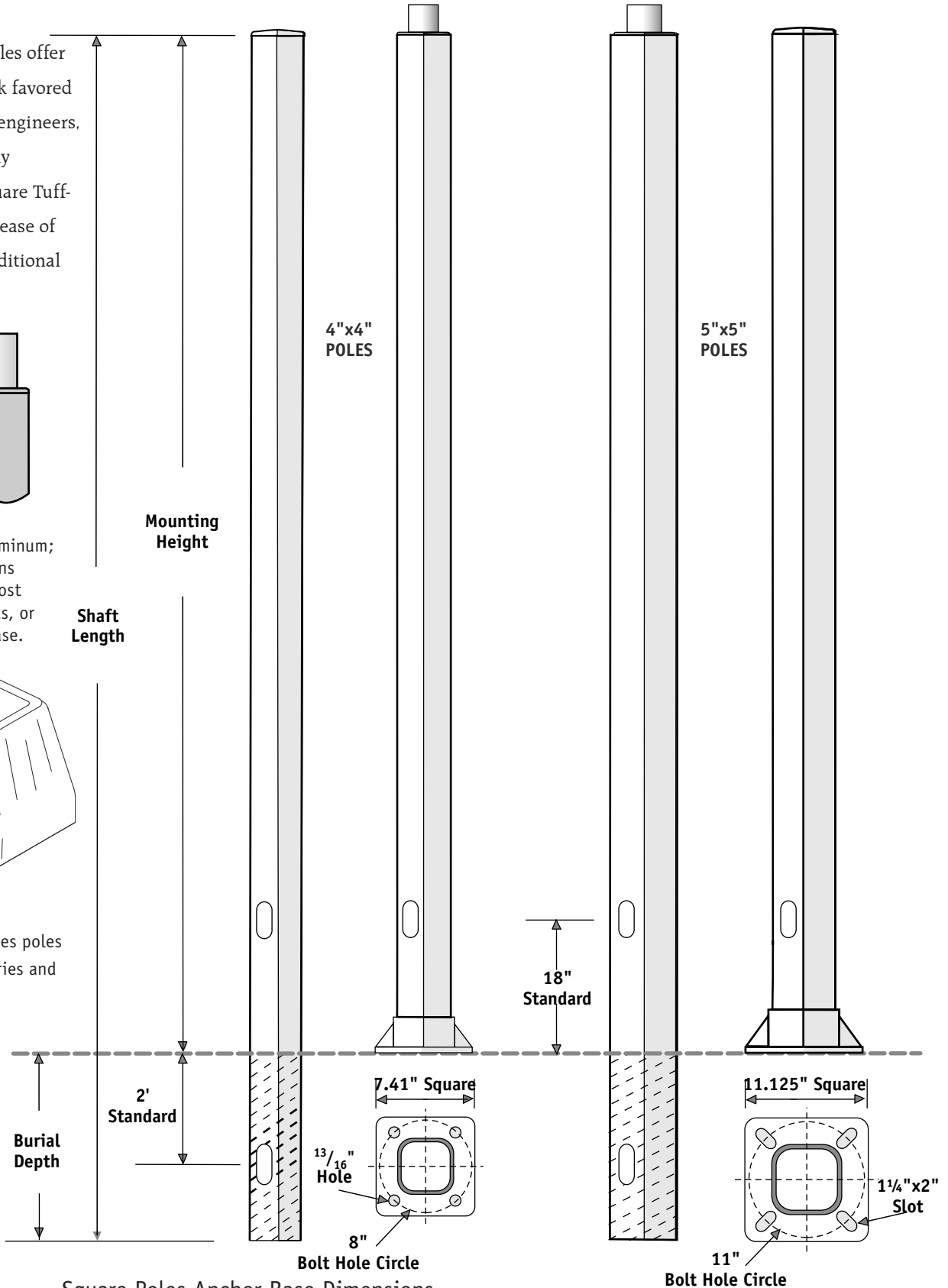


TENONS: $2\frac{3}{8}$ " or 3" OD. Tenons are A356-T6 aluminum; for other optional tenons contact Shakespeare. Post top fixtures, flood lights, or brackets mount with ease.



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"	$1\frac{1}{4}$ " x 2"	6' to 30'

Straight Square Composite Tuff-Poles®

AQ, SSA, and AR, Series, Anchor 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					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	AQ06	Smooth, bronze
8	8	23	4	4	18	150	20.0	20.0	20.0	13.8	8	AQ08	Smooth, bronze
10	10	27	4	4	18	150	20.0	20.0	16.1	10.5	8	AQ10	Smooth, bronze
12	12	31	4	4	18	150	20.0	16.4	12.8	8.1	8	AQ12	Smooth, bronze
14	14	35	4	4	18	150	14.2	10.7	8.2	4.9	8	AQ14	Smooth, bronze
15	15	37	4	4	18	150	13.0	9.7	7.3	4.3	8	AQ15	Smooth, bronze
16	16	39	4	4	18	150	11.9	8.8	6.5	3.7	8	AQ16	Smooth, bronze
18	18	43	4	4	18	150	9.9	7.2	5.2	2.6	8	AQ18	Smooth, bronze
20	20	47	4	4	18	150	8.3	5.8	4.0	1.6	8	AQ20	Smooth, bronze
25	25	57	4	4	18	150	5.0	3.0	1.5	--	8	AQ25	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	SSA5-10	Smooth, bronze
15	15	79	5	5	18	300	21.3	16.3	12.8	8.2	11	SSA5-15	Smooth, bronze
20	20	102	5	5	18	300	14.9	11.1	8.4	4.9	11	SSA5-20	Smooth, bronze
25	25	125	5	5	18	300	10.6	7.6	5.4	2.6	11	SSA5-25	Smooth, bronze
30	30	148	5	5	18	300	5.7	3.4	1.7	--	11	SSA5-30	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	AR06	Smooth, bronze
8	8	51	5	5	18	300	76.4	59.9	48.1	33.7	11	AR08	Smooth, bronze
10	10	61	5	5	18	300	61.5	48.0	38.4	25.8	11	AR10	Smooth, bronze
12	12	71	5	5	18	300	58.0	39.6	31.4	20.8	11	AR12	Smooth, bronze
14	14	82	5	5	18	300	34.5	26.6	21.0	13.6	11	AR14	Smooth, bronze
15	15	87	5	5	18	300	31.9	24.5	19.2	12.3	11	AR15	Smooth, bronze
18	18	102	5	5	18	300	25.9	19.4	14.9	9.1	11	AR18	Smooth, bronze
20	20	113	5	5	18	300	22.3	16.7	12.6	7.4	11	AR20	Smooth, bronze
25	25	138	5	5	18	300	15.9	11.4	8.1	3.9	11	AR25	Smooth, bronze
30	30	164	5	5	18	300	8.6	5.1	2.6	--	11	AR30	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	BQ08	Smooth, bronze
8	10	22	4	4	42	150	20.0	20.0	20.0	13.8	2	BQ10	Smooth, bronze
10	13	28	4	4	54	150	20.0	20.0	16.1	10.5	3	BQ13	Smooth, bronze
12	15	32	4	4	54	150	20.0	16.4	12.8	8.1	3	BQ15	Smooth, bronze
14	18	37	4	4	66	150	14.2	10.7	8.2	4.9	4	BQ18	Smooth, bronze
15	19	40	4	4	66	150	13.0	9.7	7.3	4.3	4	BQ19	Smooth, bronze
16	20	43	4	4	66	150	11.9	8.8	6.5	3.7	4	BQ20	Smooth, bronze
18	22	49	4	4	66	150	9.9	7.2	5.2	2.6	4	BQ22	Smooth, bronze
20	25	55	4	4	78	150	8.3	5.8	4.0	1.6	5	BQ25	Smooth, bronze
25	30	70	4	4	78	150	5.0	3.0	1.5	--	5	BQ30	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	SSB5-13	Smooth, bronze
15	19	88	5	5	66	300	21.3	16.3	12.8	8.2	4	SSB5-19	Smooth, bronze
20	25	112	5	5	78	300	14.9	11.1	8.4	4.9	5	SSB5-25	Smooth, bronze
25	30	140	5	5	78	300	10.6	7.6	5.4	2.6	5	SSB5-30	Smooth, bronze
30	35	164	5	5	78	300	5.7	3.4	1.7	--	5	SSB5-35	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	BR13	Smooth, bronze
15	19	97	5	5	66	300	31.0	21.0	18.0	11.1	4	BR19	Smooth, bronze
20	25	123	5	5	78	300	22.3	16.7	12.6	7.4	5	BR25	Smooth, bronze
25	30	154	5	5	78	300	15.9	11.4	8.1	3.9	5	BR30	Smooth, bronze
30	35	180	5	5	78	300	8.6	5.1	2.6	--	5	BR35	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	BT13	Natural, bronze
12	15	37	4.4	5.9	54	200	17.2	12.7	9.5	5.4	3	BT15	Natural, bronze
14	18	44	4.4	6.1	66	200	13.1	9.4	6.7	3.2	4	BT18	Natural, bronze
16	20	49	4.4	6.3	66	200	8.0	5.4	3.5	1.1	4	BT20	Natural, bronze
18	22	54	4.4	6.5	66	200	5.9	3.6	1.9	--	4	BT22	Natural, bronze
20	24	58	4.4	6.8	66	200	4.1	2.1	0.6	--	4	BT24	Natural, bronze
20	24	88	4.6	7.0	66	200	12.9	9.0	6.2	2.5	4	BTH24	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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