



## TAPERED SMOOTH POLE

- Tapered, smooth composite pole shaft
- Direct Embedded and Anchor Base models
- XTREME® elastomeric urethane base cover

## **Ordering Information**

SAMPLE CATALOG NUMBER LOGIC

	В	С	D	Е	F
TS45-D41M	18	DE	DGR	40	
TS45-D41M	30	AB	BLK	35	RC
BASE & POLE DESIGN	ABOVE GRADE HEIGHT	INSTALLATION METHOD	COLOR	TENON O.D.	OPTIONS

D	$\Lambda_{DOVE}$	CDADE	HEIGHT
В	AROVE	(JRADE	HEIGHT

R	ABOVE	GRADE HEIGHT
	Cat No.	Description
	10	10 feet/3.0M
	11	11 feet/3.4M
	12	12 feet/3.7M
	13	13 feet/4.0M
	14	14 feet/4.3M
	15	15 feet/4.6M
	16	16 feet/4.9M
	17	17 feet/5.2M
	18	18 feet/5.5M
	19	19 feet/5.8M
	20	20 feet/6.1M
	21	21 feet/6.40M
	22	22 feet/6.71M
	23	23 feet/7.01M
	24	24 feet/7.32M
	25	25 feet/7.62M
	26	26 feet/7.92M
	27	27 feet/8.32M
	28	28 feet/8.53M
	29	29 feet/8.84M
	30	30 feet/9.14M

### C INSTALLATION METHOD

Cat No.	Description
DE	Direct Embedded
AB	Anchor Base

#### D Color

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	Cat No.	Description
	BLK	Black
	MTB	Matte Black
	DBZ	Dark Bronze
	DGR	Dark Green
	HTG	Hunter Green
	SLV	Silver
	WHT	White
	GRY	Grey
	CC	Custom color - Please
	provid	e a min. 3" x 3" color chip.
	RAL	Please provide a four digit
	RAL	color number.

### E TENON O.D. (OUTSIDE DIAMETER)

Cat No.	Description
23	2 3/8" (60 mm)
27	2 7/8" (73mm)
30	3" (76 mm) nominal
35	3 1/2" (89 mm)
40	4" (102 mm)

Tenons include a cast decorative ring at the top of the pole.

• For other tenon sizes contact the factory.

#### F OPTIONS

Cat I	No.	Description	

RC Receptacle housing and a NEC approved cover. GFCI receptacle by others. Standard location is 12"/305mm below the top of the pole.

• Other accessories are shown on the Accessories specification sheet.

ABOVE GRADE HEIGHT

20' MODEL SHOWN

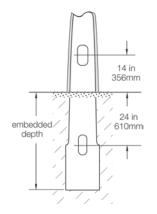


HEIGHT: 44"/1118MM

BASE DIAMETER: 24"/609MM

Whatley - Valmont Composite Structures, Inc. 19845 U.S. Highway 76 • Newberry, SC 29108 USA Tel: 877.959.7678 | 803.276.5507 • Fax: 803.276.8940 • whatley.com

## Direct Embedded - DE



DEPTH
3ft/.91M
4ft/1.2M
5ft/1.5M

\* Embedded depths may vary per local codes, site soil conditions, drainage and very high wind conditions.

Hand hole is: 2.5"/62mm x 5"/125mm.

# Specifications

## POLE SHAFT

The pole shaft shall be round tapered, smooth with a .14"/3.5mm per foot taper. The hand hole shall be 2.5"/62mm x 5"/125mm with a cover. The shaft shall be constructed of continuous fiberglass filament combined with a thermosetting resin. The glass filament shall be helically wound at alternating high and low angle layers for maximum compressive and bending strength. The hand hole area and hardware attachment areas shall be reinforced. The poles shall be designed with a minimum safety factor of 1.5:1 and have a maximum deflection of 15% under full wind loading conditions.

The butt end of the embedded-type post shall be enlarged and oval to increase the resistance to rotation and provide maximum ground bearing resistance (anti-lift). The post shall be non-conductive and chemically inert.

#### PERFORMANCE CRITERIA

The post shall be designed with a minimum safety factor of 1.5:1 and have no more than a 15% deflection at full wind loading. The post shall deflect no more than 2.5% of the above-ground length with 100 lbs. of lateral top load. Poles shall be tested and rated per ANSI C136.20-2012.

#### DIRECT EMBEDDED INSTALLATION

Direct embedded poles shall have a 2.5 inch (62mm) by 6 inch (152mm) slot for conduit entrance 24 inches (610mm) below finished grade. Embedded depths may vary per local codes, site soil conditions, drainage and very high wind conditions.

#### ANCHOR BASE

Anchor bases shall be constructed of primed and painted aluminum or galvanized steel. The base shall be factory bonded to the post. The anchor base shall have four holes at ninety degrees, accommodating a bolt circle of 7-9 inches, 9-11 inches or 12 inches.

#### POST TOP

A painted aluminum or galvanized steel tenon shall be firmly bonded to the pole for mounting a post-top luminaire or arm.

#### FINISH

The surface of the post shall be uniform and consistent for the entire length of the post. A UV-resistant catalyzed urethane coating shall be extremely durable and retains its gloss after a 5000 hour exposure test (ASTM G-154) to the sun, with no dulling or chalking of the surface.

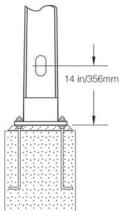
#### ORNAMENTAL BASE COVER

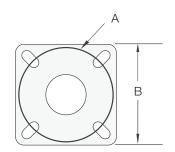
The ornamental decorative base cover shall be one or two piece and constructed of a proprietary elastomeric urethane and finished to match the post. The base shall be corrosion free and extremely resistant to impact and chipping.

#### WARRANTY

The products shall be warranted to be free of defects for three years from the date of shipment from the factory.

## Anchor Base Installation - AB





Α	В	Anchor Bolts		
9-11"	10"	3/4" x 30"		
12"	11.5"	3/4" x 30"		
	9-11"	9-11" 10"		

## Wind Loading Data for Direct Embedded and Anchor Base

	WIND SPEED (MPH) WITH 3 SECOND GUST FACTOR								TOR
Cat	No. Description	WT	90	100	110	120	130	140	150
10	10 feet/3.10M	39	14.8	11.9	9.7	8.1	6.8	5.8	5.0
11	11 feet/3.35M	45	15.0	12.0	9.8	8.1	6.8	5.8	5.0
12	12 feet/3.66M	51	14.1	11.2	9.1	7.6	6.4	5.4	4.7
13	13 feet/3.96M	54	13.1	10.1	8.5	7.0	5.9	5.0	4.3
14	14 feet/4.27M	58	12.7	10.1	8.2	6.7	5.6	4.8	4.1
15	15 feet/4.57M	65	12.5	9.9	8.0	6.6	5.5	4.7	4.0
16	16 feet/4.88M	68	12.6	10.0	8.1	6.7	5.6	4.7	4.0
17	17 feet/5.18M	72	11.3	8.9	7.2	5.9	4.9	4.1	3.5
18	18 feet/5.49M	76	12.2	9.6	7.8	6.4	5.3	4.5	3.8
19	19 feet/5.79M	80	11.0	8.7	7.0	5.7	4.7	4.0	3.4
20	20 feet/6.10M	85	10.8	8.5	6.8	5.6	4.6	3.9	3.3
21	21 feet/6.40M	102	10.9	8.6	6.9	5.6	4.7	3.9	3.3
22	22 feet/6.71M	106	8.8	6.9	5.5	4.4	3.6	3.0	2.4
23	23 feet/7.01M	109	8.3	5.9	5.1	4.1	3.4	2.8	2.2
24	24 feet/7.32M	113	8.1	6.3	5.0	4.0	3.3	2.7	2.1
25	25 feet/7.62M	117	7.9	6.1	4.8	3.9	3.2	2.6	2.0
26	26 feet/7.92M	121	7.7	6.0	4.7	3.8	3.1	2.5	1.9
27	27 feet/8.32M	125	6.6	5.1	4.0	3.1	2.5	2.0	1.4
28	28 feet/8.53M	128	6.4	4.9	3.8	3.0	2.4	1.9	1.3
29	29 feet/8.84M	132	6.2	4.8	3.7	2.9	2.3	1.8	1.2
30	30 feet/9.14M	136	5.1	3.8	2.9	2.2	1.7	1.3	0.8
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Wind speed values are for a 3-second gust per ASCE. Calculated per ANSI C136.20-2012. Assumes load 12 inches above the pole top. Safety factor = 1.5:1. Maximum weight for tenon mount is 100 lbs.

Contact factory for AASHTO or specific local codes.

