



COMPOSITE POLE

TR50

DESIGNED FOR POST TOP OR SIDE MOUNTING MAST ARMS UP TO 10'

- Smooth, tapered composite pole shaft
- Direct Embedded and Anchor Base models
- Base cover provided with AB pole

Ordering Information

SAMPLE CATALOG NUMBER LOGIC

	B	C	D	E	F	G
TR50	35	AB	DGR	SMS	30	•
TR50	25	DE	BLK	TXT	40	•
POLE	ABOVE GRADE HEIGHT	INSTALLATION METHOD	COLOR	SURFACE FINISH	TENON O.D.	OPTIONS

B ABOVE GRADE HEIGHT

Cat No.	Description
TR50-20	20 feet/6.1M
TR50-21	21 feet/6.40M
TR50-22	22 feet/6.71M
TR50-23	23 feet/7.01M
TR50-24	24 feet/7.32M
TR50-25	25 feet/7.62M
TR50-26	26 feet/7.92M
TR50-27	27 feet/8.32M
TR50-28	28 feet/8.53M
TR50-29	29 feet/8.84M
TR50-30	30 feet/9.14M
TR50-31	31 feet/9.49M
TR50-32	32 feet/9.75M
TR50-33	33 feet/10.1M
TR50-34	34 feet/10.4M
TR50-35	35 feet/10.7M
TR50-36	36 feet/11.0M
TR50-37	37 feet/11.3M
TR50-38	38 feet/11.6M
TR50-39	39 feet/11.9M
TR50-40	40 feet/12.2M

C INSTALLATION METHOD

Cat No.	Description
DE	Direct Embedded
AB	Anchor Base

D COLOR

Cat No.	Description
BLK	Black
DBZ	Dark Bronze
DGR	Dark Green
SLV	Silver
WHT	White
GRY	Grey
CC	Custom color - Please provide a min. 3" x 3" color chip.

E SURFACE FINISH

Cat No.	Description
TXT	Natural texture of the reinforcing strands
SMS	Smooth surface finish

F TENON SIZE

Cat No.	Description
23	2 3/8" (60mm) OD x 3 3/4" (95mm) height
30	3" (76mm) OD x 3 3/4" (95mm) height
40	4" (120mm) OD x 6" (178mm) height
99	Custom Tenon Size

G OPTIONS

Cat No.	Description
DTC	Top pole cap and drilling for a side mounted arm(s). Provide template or drawing for hole locations.
FLD	Top pole cap. Field drill to accept a luminaire.
RC	Receptacle housing and a NEC approved cover. GFCI receptacle by others. Standard location is 12"/305mm below the top of the pole.
RBC	XTREME urethane composite base cover for direct embedded (DE) installations. Painted to match the pole color.

- *Other accessories are shown on the Accessories specification sheet.*

ABOVE GRADE
HEIGHT
20' MODEL
SHOWN



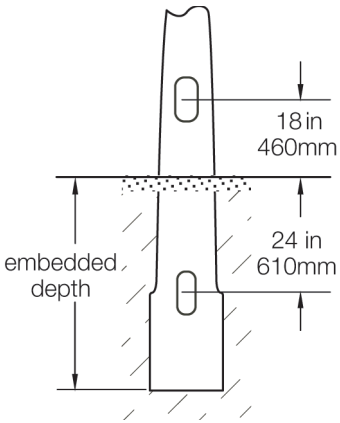
Whatley - Valmont Composite Structures, Inc.

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TAPERED POLE SHAFT

Direct Embedded - DE



SHAFT LENGTH	EMBEDDED DEPTH
20 to 24 feet	4ft/1.2M
25 to 34 feet	5ft/1.5M
35 to 40 feet	6ft/1.8M

* 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 pole.

TENON

A painted galvanized steel or aluminum 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) to the sun, with no dulling or chalking of the surface.

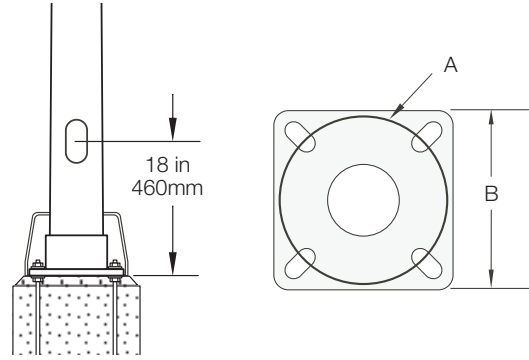
BASE COVER

The standard base cover shall be a round or square two-piece molded ABS cover. Optional base cover – Proprietary elastomeric urethane or fiberglass (one or two-piece). All base covers shall be corrosion free and painted to match pole.

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



Anchor Base Dimensions for TR50

- Hand hole is 2.5"/62mm x 5"/125mm
- Anchor bolts are .75" x 21" x 3" for pole up to 24 feet, taller poles 25 to 35 feet are 1" x 36" x 4"
- Mounting slots are 1"/25mm x 1.5"/38mm for 10" & 12" bolt circle and 1.25"/32mm x 2.0"/51mm for 14" and 16" bolt circle
- Conduit entry hole in base plate is 4.0"/100mm

SHAFT LENGTH	BOLT CIRCLE (A)	BASE PLATE SIZE (B)	ANCHOR BOLTS
14'-17'	10"/254MM	10"/254MM	3/4" x 30"
18'-24'	12"/304MM	11.5"/292MM	3/4" x 30"
25'-35'	14"/304MM	13.5"/343MM	1" x 36"
36'-40'	16"/406MM	15"/381MM	1" x 36"

Wind Loading Data

for Direct Embedded and Anchor Base

		WIND SPEED (MPH) WITH 3 SECOND GUST FACTOR								
Cat No.	Description	WT	90	100	110	120	130	140	150	
20	20 feet/6.10M	85	16.9	13.5	10.9	9.0	7.6	6.4	5.5	
21	21 feet/6.40M	128	20.1	16.0	13.0	10.8	9.0	7.7	6.5	
22	22 feet/6.71M	133	18.9	15.1	12.3	10.1	8.5	7.2	6.1	
23	23 feet/7.01M	137	17.9	14.2	11.5	9.5	8.0	6.7	5.6	
24	24 feet/7.32M	142	16.9	13.4	10.9	9.0	7.5	6.3	5.2	
25	25 feet/7.62M	132	19.3	15.3	12.4	10.1	8.2	6.6	5.4	
26	26 feet/7.92M	137	18.5	14.7	11.9	9.6	7.7	6.2	5.0	
27	27 feet/8.32M	142	17.8	14.1	11.5	9.2	7.3	5.9	4.7	
28	28 feet/8.53M	148	17.2	13.6	11.0	8.8	6.9	5.5	4.4	
29	29 feet/8.84M	153	16.6	13.1	10.6	8.3	6.6	5.2	4.1	
30	30 feet/9.14M	158	16.0	12.6	10.2	8.0	6.2	4.9	3.8	
31	31 feet/9.44M	163	15.4	12.2	9.8	7.6	5.9	4.6	3.5	
32	32 feet/9.75M	168	14.9	11.8	9.4	7.2	5.6	4.3	3.2	
33	33 feet/10.06M	250	21.6	17.2	17.2	10.8	8.6	6.9	5.4	
34	34 feet/10.36M	257	21.2	16.9	13.4	10.5	8.4	6.6	5.5	
35	35 feet/10.67M	263	21.1	16.8	13.2	10.4	8.2	6.5	5.1	
36	36 feet/10.97M	187	13.1	10.3	7.9	5.9	4.4	3.2	2.2	
37	37 feet/11.28M	191	12.1	9.5	7.2	5.3	3.8	2.7	1.7	
38	38 feet/11.58M	196	12.5	9.7	7.3	5.4	3.9	2.7	1.7	
39	39 feet/11.89M	200	15.1	11.7	8.8	6.6	4.9	3.6	2.5	
40	40 feet/12.19M	205	14.6	11.5	8.6	6.4	4.7	3.4	2.3	

Wind speed values are for a 3-second gust. 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 200 lbs; for side mounting, total loading cannot exceed 75 lbs (max loading includes all attachments, arms, fixtures & accessories).

Contact factory for AASHTO or specific local codes.