



COMPOSITE POLE

TR45

DESIGNED FOR POST TOP OR SIDE MOUNTING - 4'-6' MAST ARMS

- 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	
TR45	-	16	-	AB	-	DBZ	-	SMS	-	30	-	•
TR45	-	20	-	DE	-	BLK	-	TXT	-	40	-	•
POLE		ABOVE GRADE HEIGHT		INSTALLATION METHOD		COLOR		SURFACE FINISH		TENON O.D.		OPTIONS

B ABOVE GRADE HEIGHT	
Cat No.	Description
TR45-10	10 feet/3.0M
TR45-11	11 feet/3.4M
TR45-12	12 feet/3.7M
TR45-13	13 feet/4.0M
TR45-14	14 feet/4.3M
TR45-15	15 feet/4.6M
TR45-16	16 feet/4.9M
TR45-17	17 feet/5.2M
TR45-18	18 feet/5.5M
TR45-19	19 feet/5.8M
TR45-20	20 feet/6.1M
TR45-21	21 feet/6.40M
TR45-22	22 feet/6.71M
TR45-23	23 feet/7.01M
TR45-24	24 feet/7.32M
TR45-25	25 feet/7.62M
TR45-26	26 feet/7.92M
TR45-27	27 feet/8.32M
TR45-28	28 feet/8.53M
TR45-29	29 feet/8.84M
TR45-30	30 feet/9.14M

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

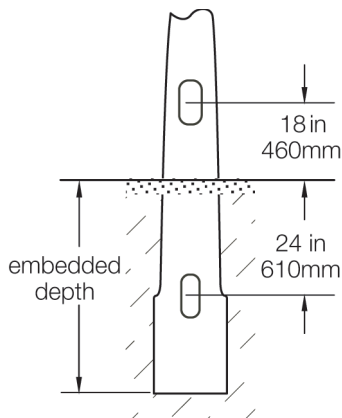
G OPTIONS	
Cat No.	Description
DTC	Top pole cap and drilling for a side mounted arm(s). Provide template or drawing for hole locations.
FLD	Top pole cap. Field drill to accept a luminaire.
RC	Receptacle housing and a NEC approved cover. GFCI receptacle by others. Standard location is 12"/305mm below 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



Direct Embedded - DE



SHAFT LENGTH	EMBEDDED DEPTH
10 to 13 feet	3ft/.91M
14 to 24 feet	4ft/1.2M
25 to 30 feet	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 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.

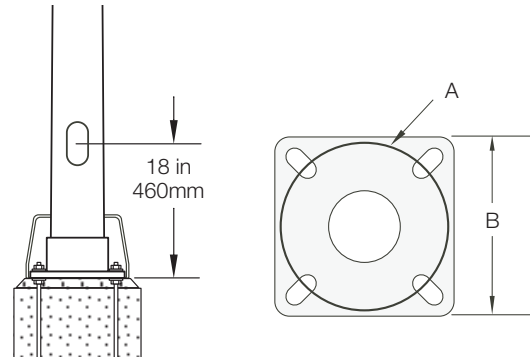
Optional base cover – Proprietary elastomeric urethane or fiberglass (one or two-piece).

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 TR45

- Hand hole is 2.5"/62mm x 5"/125mm
- Mounting slots are 1"/25mm x 1.5"/38mm for 10" & 12" bolt circle
- Conduit entry hole in base plate is 4.0"/100mm

SHAFT LENGTH	BOLT CIRCLE (A)	BASE PLATE SIZE (B)	ANCHOR BOLTS
10'-21'	10"/254MM	10"/254MM	3/4" x 30"
22'-30'	12"/304MM	11.5"/292MM	3/4" x 30"

Wind Loading Data

for Direct Embedded and Anchor Base

Cat No.	Description	WT	WIND SPEED (MPH) WITH 3 SECOND GUST FACTOR				
			90	100	110	120	130
10	10 feet/3.10M	34	14.8	11.9	9.7	8.1	6.8
11	11 feet/3.35M	36	15.0	12.0	9.8	8.1	6.8
12	12 feet/3.66M	38	14.1	11.2	9.1	7.6	6.4
13	13 feet/3.96M	40	13.1	10.1	8.5	7.0	5.9
14	14 feet/4.27M	45	12.7	10.1	8.2	6.7	5.6
15	15 feet/4.57M	49	12.5	9.9	8.0	6.6	5.5
16	16 feet/4.88M	52	12.6	10.0	8.1	6.7	5.6
17	17 feet/5.18M	53	11.3	8.9	7.2	5.9	4.9
18	18 feet/5.49M	54	12.2	9.6	7.8	6.4	5.3
19	19 feet/5.79M	57	11.0	8.7	7.0	5.7	4.7
20	20 feet/6.10M	59	10.8	8.5	6.8	5.6	4.6
21	21 feet/6.40M	88	10.9	8.6	6.9	5.6	4.7
22	22 feet/6.71M	90	8.8	6.9	5.5	4.4	3.6
23	23 feet/7.01M	92	8.3	5.9	5.1	4.1	3.4
24	24 feet/7.32M	95	8.1	6.3	5.0	4.0	3.3
25	25 feet/7.62M	100	7.9	6.1	4.8	3.9	3.2
26	26 feet/7.92M	105	7.7	6.0	4.7	3.8	3.1
27	27 feet/8.32M	123	6.6	5.1	4.0	3.1	2.5
28	28 feet/8.53M	126	6.4	4.9	3.8	3.0	2.4
29	29 feet/8.84M	130	6.2	4.8	3.7	2.9	2.3
30	30 feet/9.14M	139	5.1	3.8	2.9	2.2	1.7

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 150 lbs; for side mounting, total loading cannot exceed 50 lbs (max loading includes all attachments, arms, fixtures & accessories).

Contact factory for AASHTO or specific local codes.