

ANCHOR BOLTS

Anchor Bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an “L” bend on one end and are galvanized a minimum of 12 inches on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

ANCHOR BASE

The anchor base (base plate) is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. The base is provided with a slotted anchor bolt opening that enables a range of bolt circles to be utilized. The pole chart information lists bolt circle ranges for each pole type.

POLE SHAFT

The pole shaft is fabricated from weldable grade hot rolled commercial quality carbon steel and is supplied in 11 gauge (0.1196") or 7 gauge (0.1793") material thickness having a guaranteed minimum yield strength of 55,000 psi. Shafts are of one-piece construction with a full length longitudinal high frequency electric resistance weld. The shaft is uniformly square in cross section with flat sides, rounded corners (.75" per corner), and no taper.

HANDHOLE

The reinforcing handhole rim consists of a rectangular shaped tubing material having a nominal 2.5" x 5" opening. It is provided with a steel attachment bar, steel cover, and one round head machine screw. The handhole is welded in the pole shaft and is located 1'-6" above the base.

ELECTRICAL GROUND

A nut holder is provided near the handhole and includes a 0.5"-13 UNC hex head bolt and nut.

FULL BASE COVER (STANDARD)

The standard full base cover is fabricated from ABS plastic. It is a two-piece cover secured together with two plastic hand push rivets.

POLE TOP CAP (STANDARD)

A removable top cap is provided and is used in conjunction with drilled pole shafts for accommodation of a direct mounted luminaire arm attachment.

POLE TOP TENON (OPTIONAL)

Pole top tenons are fabricated from structural quality hot rolled carbon steel with a guaranteed minimum yield strength of 30,000 psi. A pole top plate and tenon of weldable grade hot rolled commercial quality carbon steel is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wiring raceway into the pole top tenon. Standard sizes are of either 2.38" O.D. x 4" long (P2) or 4" O.D. x 6" long (P4) steel tubing.

STANDARD FINISH

Standard finishes available are galvanized, prime coat (powder), and finish coat (powder). For information regarding the scope and application of these coatings please refer to page 5.

FASTENING HARDWARE

All structural fasteners are galvanized high strength carbon steel. All other fasteners are galvanized or zinc plated carbon steel or stainless steel.

DESIGN

The standards shown in this section are designed to withstand dead loads and theoretical dynamic loads developed by variable wind speeds,

as charted, with an appropriate gust factor under the following conditions:

The wind velocities are based on 10 mph increments from 80 mph through 100 mph (reference wind map). Standards to be located in areas of known abnormal conditions require special consideration. For example: coastal areas, airports, and areas of special winds such as the Chinook Winds along the eastern slope of the Rocky Mountains.

Standards are designed for ground mounted applications. Standards mounted on structures (such as bridges and buildings) also necessitate special consideration requiring Valmont's recommendation.

Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the standard.

Valmont Industries, Inc. reserves the right to install various, engineer approved, material hanging accommodations to facilitate the manufacturing process. If this method is not acceptable, Valmont Industries, Inc. must be notified by the customer prior to manufacturing.

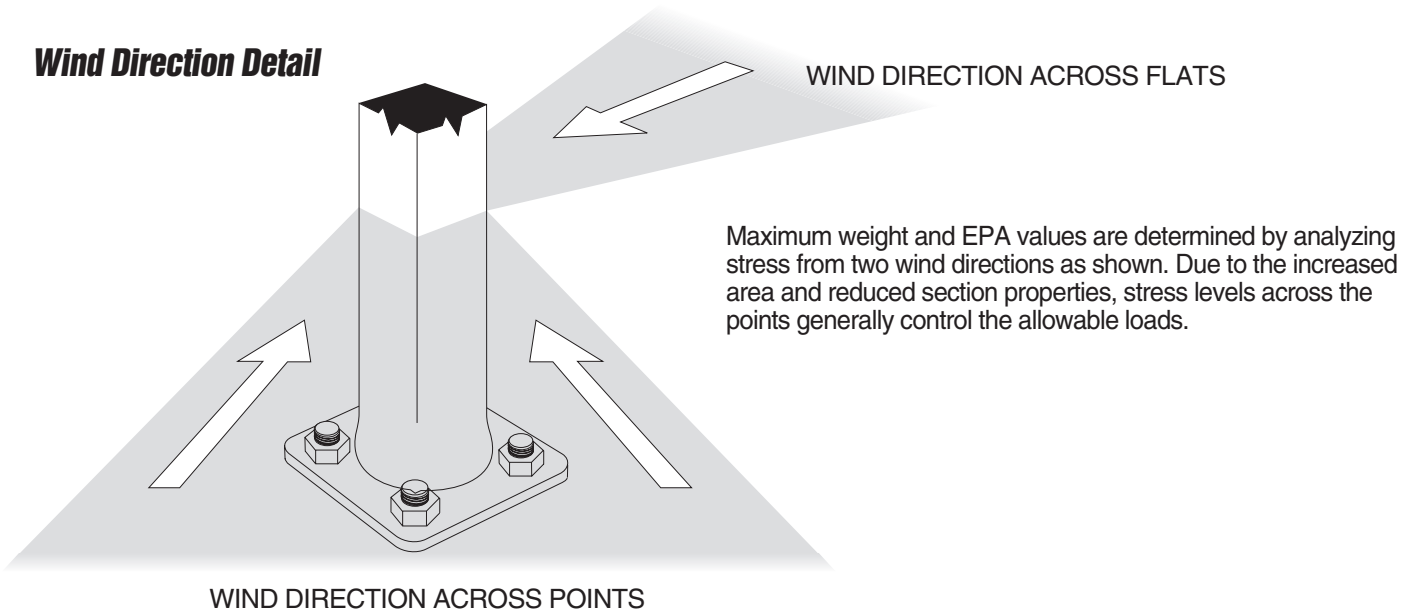
FATIGUE RESISTANT PRODUCT

This product was specially designed to reduce the effects of fatigue in the welded connection between the pole shaft and base plate. Square poles, by the very nature of their shape, are more susceptible to fatigue at this critical joint than in any other geometric pole shape or design. By flaring out the shaft, and creating a round section at this critical welded connection point, the stress and resulting fatigue occurring at this point is more evenly distributed and thus enhances the structures longevity and overall performance.

Nominal Mounting Height (ft)	Shaft				Pole Base				Anchor Bolts	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle		Square (in)	Thk. (in)	Dia. x Lngth. x Hk. (in)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
10	400Q100	4.00	11	75	8.5	0.5	8.25	0.75	.75 x 17 x 3	30.6	765	23.8	595	18.9	473
12	400Q120	4.00	11	90	8.5	0.5	8.25	0.75	.75 x 17 x 3	24.4	610	18.8	470	14.8	370
14	400Q140	4.00	11	100	8.5	0.5	8.25	0.75	.75 x 17 x 3	19.9	498	15.1	378	11.7	293
16	400Q160	4.00	11	115	8.5	0.5	8.25	0.75	.75 x 17 x 3	15.9	398	11.8	295	8.9	223
18	400Q180	4.00	11	125	8.5	0.5	8.25	0.75	.75 x 17 x 3	12.6	315	9.2	230	6.7	168
20	400Q200	4.00	11	140	8.5	0.5	8.25	0.75	.75 x 17 x 3	9.6	240	6.7	167	4.5	150
	500Q200	5.00	11	185	11.0	1.0	11.00	1.00	.75 x 17 x 3	17.7	443	12.7	343	9.4	235
	500W200	5.00	7	265	11.0	1.0	11.00	1.00	.75 x 17 x 3	28.1	703	21.4	535	16.2	405
25	400Q250	4.00	11	170	8.5	0.5	8.25	0.75	.75 x 17 x 3	4.8	150	2.6	100	1.0	50
	400W250	4.00	7	245	8.5	0.5	8.25	0.88	.75 x 17 x 3	10.8	270	7.7	188	5.4	135
	500Q250	5.00	11	225	11.0	1.0	11.00	1.00	.75 x 17 x 3	9.8	245	6.3	157	3.7	150
	500W250	5.00	7	360	11.0	1.0	11.00	1.00	.75 x 17 x 3	18.5	463	13.3	333	9.5	238
30	400W300	4.00	7	291	8.5	0.5	8.25	0.75	.75 x 17 x 3	6.7	168	4.4	110	2.6	65
	500Q300	5.00	11	265	11.0	1.0	11.00	1.00	.75 x 17 x 3	4.7	150	2.0	50	-	-
	500W300	5.00	7	380	11.0	1.0	11.00	1.00	.75 x 17 x 3	10.7	267	6.7	167	3.9	100
	600W300	6.00	7	520	12.0	1.0	12.50	1.00	1.00 x 36 x 4	19.0	475	13.2	330	9.0	225
35	500W350	5.00	7	440	11.0	1.0	11.00	1.00	.75 x 17 x 3	5.9	150	2.5	100	-	-
	600W350	6.00	7	540	12.0	1.0	12.50	1.00	1.00 x 36 x 4	12.4	310	7.6	190	4.2	105
40	600W400	6.00	7	605	12.0	1.0	12.50	1.00	1.00 x 36 x 4	7.2	180	3.0	75	-	-

DS330 NOTES:

1. All designs provided with 2.5" x 5" nominal handhole.
2. Structure weight is a nominal value which includes the pole shaft and base plate only.
3. Maximum weight and EPA values are based on side mounted fixtures only. Consult Valmont on loading criteria for pole top mounted luminaires and/or brackets.



DS330 Fatigue Resistant Square Non-Tapered

Valmont is widely recognized throughout the industry as the leader in product design.

The DS330 square steel lighting pole is just another example why.

INCREASED PERFORMANCE

The unique bell-shaped base minimizes the effects of pole vibration by improving the fatigue performance of the shaft to base plate connection.

HOW WE DID IT

We evenly distributed the stress by flaring out the bottom 4" of the pole shaft and creating a round section at the critical welded connection point.

UPDATED EXTERIOR DESIGN

The DS330's rounded corners match many of today's softer corner fixture styles.

ENDLESS CHOICE OF COLORS

Valmont delivers top quality powder coatings in an endless choice of colors. We can match any color you need. Call for more information about Valmont's endless choice of colors.

QUESTIONS?

Contact your local Valmont representative.

*Rounded corners
compliment today's
softer fixture designs.*

*Bell-shaped base
reduces cracking
and fatigue stress.*

