

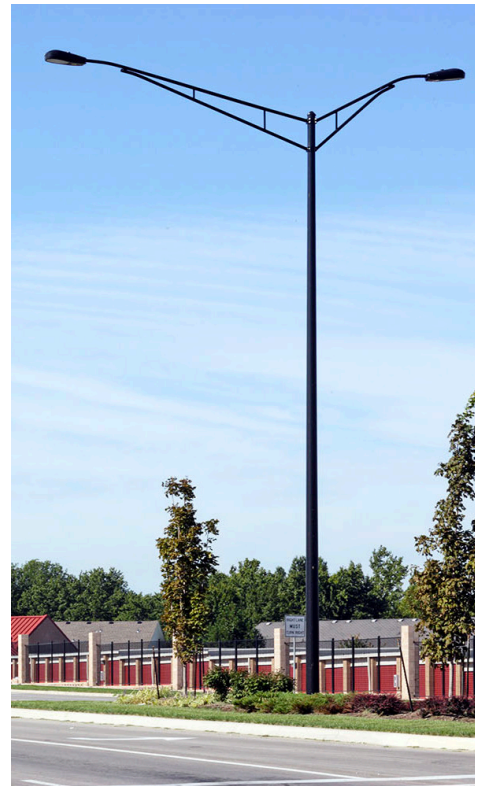


transportation **structures**

engineered to move you

valmont 
STRUCTURES

VALMONT® TRANSPORTATION STRUCTURES



Our focus is to provide quality product, on time and per spec, and ultimately, to make your community a safer, better place.

Building on a strong heritage of proven results, Valmont® offers a wide selection of traffic light signal structures, street light poles, highway sign structures, poles for traffic cameras, mass transit structures, and related infrastructure and accessories. For more than 50 years, Valmont® has offered municipalities and D.O.T.s structures to meet the most demanding requirements. We have built our reputation on a commitment to customer service, innovation, and cost control. Most importantly, we put our experience, understanding of specifications and reputation for excellence into everything we design and manufacture.

With our breadth of products, Valmont® is unmatched in our ability to merge standard products with decorative products. Whether you're revitalizing your main street or developing a major intersection, Valmont® offers a complete traffic and lighting solution.



IN-HOUSE ENGINEERING & DESIGN



Valmont® is widely recognized as a leader in structural engineering, continually setting the standard for engineering, design and installation.

With more than 600 years of combined global experience in structural testing and design, Valmont®'s engineers have the resources, the capacity, and the capabilities to anticipate and fulfill our customers' needs. In fact, many of our engineers spearhead regulatory changes on national committees, such as AASHTO, TRB, NCHRP, ASCE, ANSI and IEEE/OCS.

Simply stated, engineering is so ingrained into the Valmont® philosophy that our engineering capacity and capabilities are what set us apart from the competition.



STANDARD TRAFFIC STRUCTURES



Valmont® offers a vast array of traffic pole configurations to meet your needs. Whether you are looking for standard product or decorative product, Valmont® delivers.

Our standard steel traffic poles help improve intersection functionality and appearance with their simple, clean designs. Our structures are available with standard fixed connection or with unique adjustable clamp-on connection for use with either straight or curved mast arms, with or without additional luminaire arms.

Valmont® offers a complete package tailored to exact specifications with a wide range of design, and our poles conform to meet your unique loading requirements. At Valmont®, we design our traffic structures to exacting government standards, including AASHTO Specifications. Rest assured, our designs help keep your intersections safe and reliable.

DECORATIVE TRAFFIC STRUCTURES



Valmont®'s historic and contemporary decorative traffic poles are an attractive choice for residential neighborhoods, urban areas, and downtown redevelopment projects.

Valmont®'s ornamental designs and clean, simple arm attachments help improve intersection appearance. Our combination structures include both traffic and lighting applications in a variety of styles and configurations.

Our innovative manufacturing process creates a variety of fluted cross-sectional shapes ranging from 8, 12 or 16 flutes per pole. Shape options include sharp or flat flutes. Custom cross-sections are also available to meet your unique needs. Ask us about our decorative pole caps, cast nut covers, channel scrolls, and cast bases.



STANDARD STREET LIGHTING

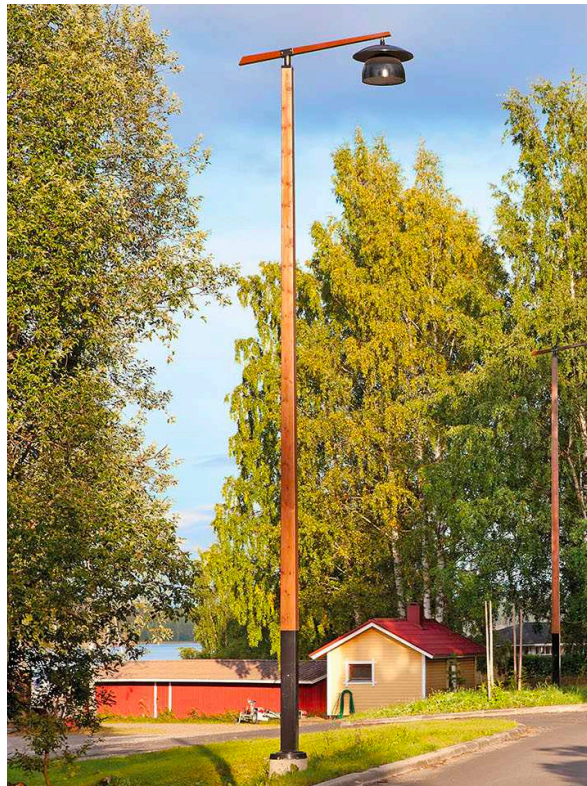


You can depend on Valmont®'s high quality steel and aluminum poles for an appealing solution to your street lighting needs.

Our shafts are available in single-piece, up to 50 feet. We offer round tapered, straight round, straight square or square tapered poles for either single or multiple light fixtures, with a choice of davit, truss and monotube arms. Accessories include transformer bases, bracket arms, pole caps, nut covers and hinged handholes.

If your project calls for lighting interstate or large highway exchanges, Valmont® is your choice for high mast lighting poles. Our single tube structures reach heights up to 175 feet and are adaptable to lowering devices or fixed mounting arrangements.

DECORATIVE LIGHTING



Valmont® offers historic and contemporary decorative lighting poles to enhance streetscapes, walkways, and residential neighborhoods.

When your project requires steel, wood, composite, or aluminum decorative lighting poles, Valmont® has the answer. We meet your unique needs with the ability to create a variety of fluted cross-sections, including sharp, flat, or gear-tooth flutes at 8, 12 or 16 flutes per pole. We will help you with custom cross-sections, as well as, decorative pole caps, cast nut covers, banner arms and cast bases.

Our vast catalog of decorative options provides a wide array of choices no matter your style. Our custom design and engineering capabilities also make it possible to develop a new standard that not only looks good but will stand the test of time.



SIGN STRUCTURES



Valmont® provides custom-engineered structures to provide strong, durable support for overhead signage for roadway, traffic, or commercial sign applications.

Valmont® is a leading supplier of steel sign structures in North America. We offer cantilever and overhead span sign structures in various styles – single-chord, two-chord, tri-chord or box-chord. We manufacture structures to government specifications and custom-design structures to meet specific needs.

Valmont® acquired Walpar, a leading manufacturer of sign structures, in 2018. Utilizing Walpar's engineering and manufacturing excellence, we are now able to pursue the most complex design, engineering and fabrication opportunities.



VIBRATION MITIGATION



Valmont® Structures has developed innovative vibration mitigation devices for traffic, lighting, and sign structures. The Valmont® Mitgator line of products help solve fatigue issues and protect the traveling public.

Vibration of transportation structures can cause unnecessary fatigue and damage as well as pose a potential risk to the traveling population. Designed to ensure the safety of your structures and the people who use them, Valmont® Structures has developed a variety of proven, tested, and patented vibration mitigation devices that can be utilized on new and existing structures.

The TR1 reduces both eddy and pneumatic vibration by over 90% in both traffic and sign structures. By reducing the motion of traffic signal pole arms, the Mitgator also reduces inspection, maintenance and repair costs.

The Valmont® LP3 and LP4 Light Pole Vibration Dampers are quiet, pole-top designs that effectively mitigates first mode vibration for lighting pole structures up to 85%



MASS TRANSIT STRUCTURES



Valmont® Structures helps lead the way on urban transit systems with a complete line of highly engineered mass transit structures

Urban population growth presents enormous opportunities and challenges for municipal leaders. When it comes to effective and reliable mass transit, the challenge is to develop solutions that are innovative and reliable but also integrate seamlessly into the unique characteristics of the urban landscape. Valmont® helps lead the way on urban transit systems with a complete line of structures, including catenary and urban to residential transition poles, plus the adjacent lighting and traffic control structures. We manufacture high quality poles that help ease your community's transportation congestion and growing needs.

To enhance the aesthetic appeal of the residential to urban transition, we merge our decorative product offering with standard products to provide a one-stop shop. We also provide area lighting poles for park and rides for safe, commuter transportation.



ELECTRIC BUS CHARGING



Valmont® Structures electric bus charging stations are the safest, most efficient, and ideal solution to keeping your fleet charged-up.

Effects of climate change, urban air pollution, and potential for cost-savings are encouraging cities to find more sustainable and health-conscious ways to offer transportation. In recent years, as battery technology has advanced to support larger vehicles, electric buses have emerged as a viable alternative to traditional diesel-powered buses. In fact, studies have shown that the benefits of switching from diesel to electric buses vastly outweigh the associated costs over the lifetime of a bus.

Electric bus charging structures from Valmont® Structures use fully automated pantograph chargers which reach down to transfer power through contact points on the roof of a bus. Our solutions for charging infrastructure ensure minimum emission public transit without negative impacts on the normal operation of routes.

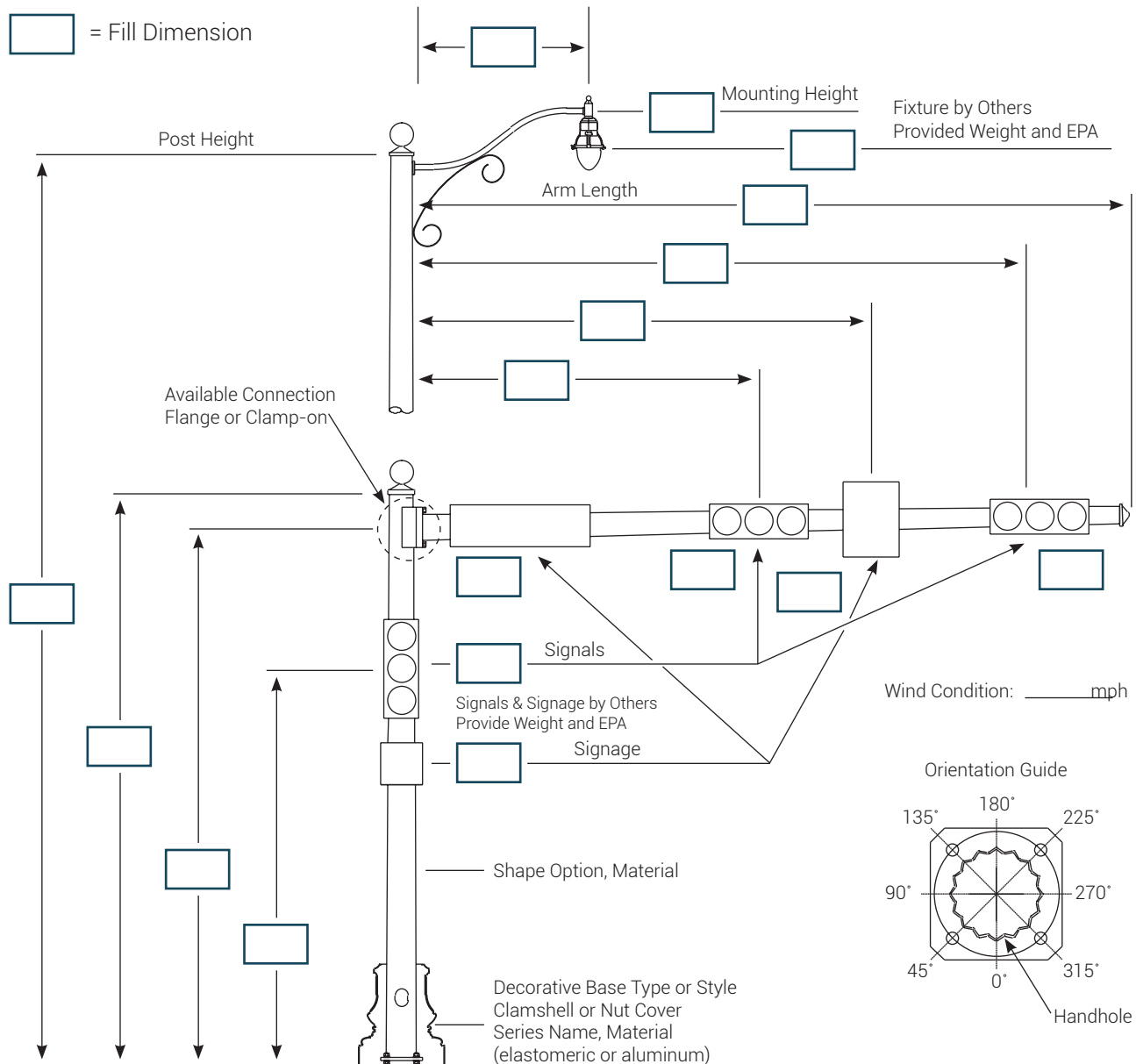


TRAFFIC POLE DESIGN

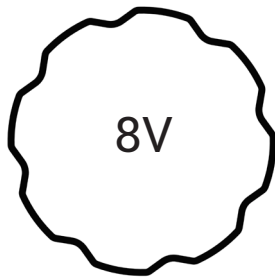
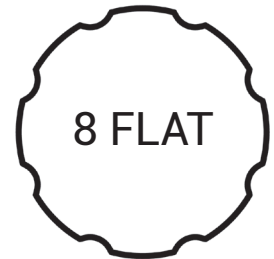
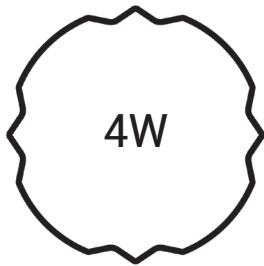
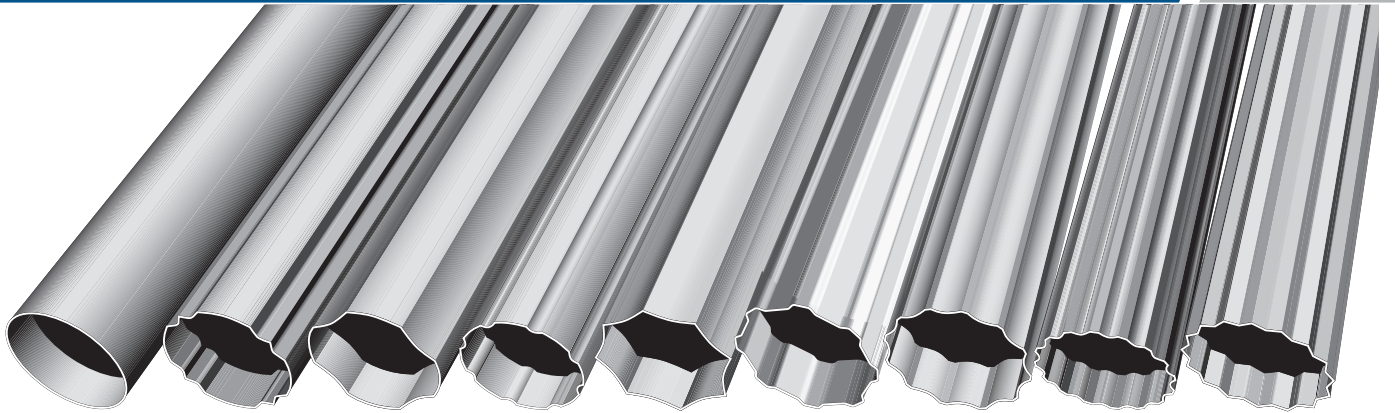
The following information is required to provide complete specifications for your project. This includes the gauge and diameter of the post shaft, the size of the base (determined by the shaft dia.) and the anchor bolt size. Please fill in the boxes below.

- Local Structural Code
- Local Wind Condition
- Shaft Type (shape)
- Base Series
- Finish Type (galv., powdercoat, powdercoat over galv.)

- Equipment Mounted to Post
 - Width X Length (projected area)
 - Weight
 - Location (height and orientation)
 - Signal EPA to be calculated with backplates, if required.



FLUTING OPTIONS



FINISHES

Valmont® Structures is uniquely qualified to offer a broad range of finishes, which serve to extend the service life and visual appeal of light poles and transportation structures. Whether your specifications call for an anti-corrosive finish or a specialty paint, Valmont® can provide you with the best finishes in the industry. Below you will find detailed descriptions of Valmont®'s protective coatings.

GALVANIZING

One of the most common and effective ways to protect steel from corrosion is galvanizing, which provides steel with both interior and exterior protection from corrosion. This barrier coating is unique, differing from all other coatings in the way it bonds to the steel, and in the corrosion resistance of the resulting zinc surface.

Valmont® is a pioneer and an industry leader in hot-dip galvanizing; in fact, Valmont® is one of the United States' largest custom galvanizers. Simply stated, we are one of the only pole manufacturers that own our own galvanizing facilities, ultimately benefiting the production of your product from design to delivery.

LIQUID & POWDER PAINT

To serve as a barrier to corrosive elements, Valmont® Structures offers powder and/or liquid coatings. These are available in a range of standard or custom colors.

Our liquid coating (wet paint) capabilities offer customers a wide variety of options including urethanes, epoxies, enamels, lacquers and water based paints. We are equipped to handle projects of all sizes and have the experience, equipment and processes to meet industry specific standards.

Valmont® Structures offers a huge selection of powder coat options including primer coats, clear coats, textured surfaces and colors that will not only protect your product but enhance the visual appeal as well. This environmentally friendly process protects your structures

CORROCOTE

Embedded products often need protection against the corrosive effects of soil and underground moisture. CorroCote is an environmentally friendly polyurethane coating system for these structures. This enamel-like sheet of thermoset plastic bonds tenaciously to the substrate being protected and provides a barrier to corrosive soils. Valmont® offers CorroCote for both galvanized and weathering steel poles and structures.

BRUSHED OR ANODIZED ALUMINUM

The anodizing process protects aluminum products with a durable, attractive finish. The process can produce a wide range of surface finishes — from bright and shiny to dull matte, in brilliant, subtle, or rich color schemes. Anodizing also enhances resistance to abrasion and corrosion and reduces surface electrical conductivity.

EXTENDED STEEL WARRANTIES

Valmont® Structures is uniquely qualified to offer a broad range of finish warranties. Ranging from one to ten years, we can provide a long-lasting option for any project. Go to Valmont@structures.com to learn more about the benefits of each of the systems below.

1 Year	Standard Galvanizing (U.S. & Canada)
1 Year	Standard Finish Paint (U.S. & Canada)
1 Year	Standard Finish Paint Over Galvanizing (U.S. & Canada)
3 Year	V-PRO 30 (U.S.)
3 Year	V-PRO 32 (U.S.)
5 Year	V-PRO 53 (U.S.)
5 Year	V-PRO 54 (U.S.)
5 Year	V-PRO 57 (U.S.)
10 Year	V-PRO 100 (U.S.)
10 Year	V-PRO 105 (U.S.)

Visit Valmont@structures.com or contact your Valmont® sales representative to obtain our Finishes Color Charts.

STEEL TRAFFIC SPECIFICATIONS

GENERAL

A Traffic Signal Pole System consists of a tapered pole, tapered traffic signal mast arm(s), luminaire arm(s) (if required), and anchor bolts.

DESIGN

Design is in accordance with AASHTO, "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals."

FABRICATOR

The Fabricator is certified to AISC Fabricator Certified Quality Program. Proof of this certification is required to ensure that the fabricator has the personnel, organization, experience, procedures, knowledge, equipment, capability and commitment to fabricate quality traffic pole structures.

WELDING

All welding is in accordance with the American Welding Society (AWS) D1.1 Structural Welding Code. Tackers and welders are qualified in accordance with the code. Tube longitudinal seam welds are free of cracks and excessive undercut, performed with automatic processes, and are visually inspected. Longitudinal welds suspected to contain defects are magnetic particle inspected. All circumferential butt-welded tube splices are non-destructively tested.

MATERIAL CERTIFICATIONS

All structural steel materials are manufactured in the United States of America, and comply with the American Society for Testing and Materials (ASTM) specifications. Mill certifications are supplied as proof of compliance with the specifications.

CALCULATIONS

Calculations and detailed drawings are submitted demonstrating compliance with the AASHTO specifications. They include stress analysis on the mast arm, luminaire arm, pole, base plate, and anchor bolts. Maximum loads and stresses are determined for the most critical wind direction.

POLE

The pole is fabricated from coil or plate conforming to ASTM A572 or ASTM A595 Grade A with a minimum yield strength of 55 ksi. The pole is round in cross-section and has a constant linear taper of 0.14 in/ft. The shaft is one piece, contains no circumferential welded splices, and is a single ply (no laminated tubes). The pole has a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base. Each pole is provided with an end cap secured in place with set screws.

SIGNAL MAST ARM

The mast arm is fabricated from coil or plate conforming to ASTM A572 or ASTM A595 Grade A with a minimum yield strength of 55 ksi. The arm is round in cross-section and has a constant linear taper of 0.14 in/ft. All mast arms up to 50' in length are manufactured and shipped in one piece with no circumferential welded splices and are of a single ply (no laminated tubes). Each arm is provided with a cast end cap secured in place with set screws.

BASE PLATE

Base plates conform to ASTM A36 or ASTM A572. Plates are integrally welded to the tubes with a telescopic joint or a full penetration weld joint with a backing ring.

ANCHOR BOLTS

Anchor bolts conform to the requirements of ASTM F1554. The upper 12" of the bolts are hot dip galvanized per ASTM A153. Each anchor bolt is supplied with two hex nuts and two flat washers. The strength of the nuts are equal or exceed the proof load of the bolts. A nut cover is provided for each anchor bolt and attached to the pole with a 0.25" stainless steel, self-tapping, hex head screw.



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