

DELIVERING ABSOLUTE PRECISION FOR STRUCTURAL SHAPES

Robotic CNC Plasma Cutting

The structural integrity of substation construct is essential to any utility project, and steel is among the most unfailing materials available. To reliably serve their customers, utility companies demand the most out of their structures, from the materials used to manufacturing accuracy to component assembly, all leading to the promise of unwavering strength from the market leader – Valmont[®] Utility.

Through the design and manufacture of substations of all sizes, Valmont Utility delivers the expertise and has made a driving commitment to serve lower kV structural shape construction projects that require special attention.



Utilizing the revolutionary robotic plasma cutting system, dedicated to the structural shape manufacture, we are able to deliver pure precision in our cuts, virtually eliminating all human error.

Precision Generates Efficiency

Valmont Utility uses an Advanced Laser measuring system, the PythonX[™] by Lincoln Electric[®], to determine the exact position and dimension of the steel so cuts can be referenced and placed exactly where required, for more efficient installation. Boltholes are perfectly straight, and slots and other shapes are cut to exact dimensions for the perfect fit.





PLASMA CUT VS. DRILL OR SAW CUTS

- Produces quality boltholes approved for structural joints
- More flexibility in hole diameter size – from two inches to 24 inches
- No taper in boltholes
- Cuts any shape to exact specified dimensions
- Eliminates human error
- Simplifies substation construction
- Ensures better structural integrity







SLOTS



Competitors

BOLTHOLES



COPES





NOTCHES

(Valmont Utility uses the PythonX" Structural Steel Fabrication System)



The possibilities are limitless

Machine Capability	Single Spindle Beam Drill Line	Three Spindle Beam Drill Line with Band Saw	Valmont Utility Plasma Cutting
Cut copes with CNC accuracy	Incapable	Incapable	YES
Make cutouts for bracing and knife connections	Incapable	Incapable	YES
Text scribing (any size)	Incapable	Incapable	YES
Miter cut	Incapable	Costly Option	YES
Cut slots and any other shapes	Incapable	Incapable	YES
Weld Prep Bevel Cut	Incapable	Incapable	YES
Rip I-Beams into T-Beams	Incapable	Incapable	YES

MANUFACTURING EXCELLENCE

- 6 axis robotic CNC plasma cutting system
- 1mm = 1/32 inch accuracy
- It's the only structural fabrication machine with a 1mm accuracy over 12m or about 1/32 inch over 40 feet
- Superior accuracy and measurement compared to pinch roll systems, which can slip
- High definition plasma technology aligns and focuses the plasma arc, improving arc stability and energy for more power precision cutting
- PATENTED hole taper compensation and advanced bevel tuning
- Multi-Axis robotic arm allows for best in class accuracy

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