

CUSTOM HOLLOW STRUCTURAL SECTIONS**PRODUCT SPECIFICATION****MANUFACTURING PROCESS**

VALMONT'S custom HSS product is manufactured by brake forming two [] sections and welding them together using two longitudinal seam welds. The seams may be supported by use of back up bars. The longitudinal seams are submerged arc welded (SAW) with a minimum standard of 80% penetration. Should it be required and requested by customer in advance of order, 100% weld penetration with Ultrasonic Testing is available. The seam shall have a reinforcement crown that will not exceed 1/8 inch in height. This longitudinal butt joint shall be welded across the thickness of the section in such a manner that the structural design strength of the tubular section is assured.

MATERIAL

Grades of steel are selected that meet the minimum physical properties required by ASTM-A500. Products manufactured to this specification may not be suitable for those applications such as dynamically loaded elements in welded structures, etc., where low temperature notch-toughness properties may be important.

DIMENSIONAL PROPERTIES

Custom hollow structural sections will meet ASTM-A500 dimensional criteria unless noted otherwise by VALMONT at time of quotation.

Squareness of Sides

For square or rectangular sections, adjacent sides may deviate from 90 degrees by a tolerance of plus or minus 2 degrees as specified by ASTM-A500.

Outside Dimensions

Tolerance for outside dimensions including convexity and concavity shall be one percent with a minimum of plus or minus 1/8 inch. For rectangular sections, the tolerance calculated for the larger flat dimension shall also apply to the smaller dimension. This tolerance may be increased 50 percent when applied to the small dimension, if the ratio of cross-sectional dimensions is between 1 ½ and 3 and 100 percent when the ratio exceeds three as specified by ASTM-A500.

Straightness

Permissible variation shall be 1/8 inch in five feet as specified by ASTM-A500.

Twist

Maximum twist per three feet length shall be 1/8 inch. Twist is measured either by holding down one end of a square or rectangular section parallel to the surface plate with the bottom side of the section parallel to the surface plate and noting the difference in height above the surface plate of two corners at the opposite end of the bottom side of the section or by measuring the difference on the heavier sections by a suitable measuring device. The difference in the height of the corners shall not exceed the above value as specified by ASTM-A500.

Corner Radii

The outside corner radii shall not exceed three times the wall thickness unless otherwise noted by VALMONT at time of quotation.

Please inquire with your VALMONT representative for specific requirements other than those listed above.