

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 250S162-68

**MARINO\WARE PART #** 212SS14

05.40.00 Cold-Formed Metal Framing

## PROPERTIES:

<b>A. Web (in)</b>	2-1/2"	<b>Yield Strength Fy (KSI)</b>	50
<b>B. Flange (in)</b>	1-5/8"	<b>Tensile Strength Fu (KSI)</b>	65
<b>C. Lip (in)</b>	1/2"	<b>Design Thickness (in)</b>	0.0713
<b>Mils</b>	68	<b>Minimum Thickness (in)</b>	0.0677
<b>Available Finish</b>	G60	<b>Gauge</b>	14

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.443
Weight of Member: (lb/ft)	1.51
Moment of Inertia: <b>I<sub>x</sub></b> (in <sup>4</sup> )	0.450
Section Modulus: <b>S<sub>x</sub></b> (in <sup>3</sup> )	0.360
Radius of Gyration: <b>R<sub>x</sub></b> (in)	1.007
Gross Moment of Inertia: <b>I<sub>y</sub></b> (in <sup>4</sup> )	0.162
Gross Radius of Gyration: <b>R<sub>y</sub></b> (in)	0.605

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>I<sub>xe</sub></b> (in <sup>4</sup> )	0.45
Section Modulus: <b>S<sub>xe</sub></b> (in <sup>3</sup> )	0.36
Allowable Local Bending Moment: <b>M<sub>al</sub></b> (in-k)	12.11*
Allowable Distortional Bending Moment: <b>M<sub>ad</sub></b> (in-k)	10.70
Allowable strong axis shear away from punch: <b>V<sub>ag</sub></b> (lb)	2866
Allowable strong axis shear at punch: <b>V<sub>anet</sub></b> (lb)	519

\* Allowable Bending Moment includes cold work of forming

### TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: <b>J<sub>x1000</sub></b> (in <sup>4</sup> )	0.752
Torsional Warping Constant: <b>C<sub>w</sub></b> (in <sup>6</sup> )	0.268
Shear Center to Centroid on Principal X-axis: <b>X<sub>o</sub></b> (in)	-1.424
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.835
Radius of Gyration on the Centroid Principal axis: <b>R<sub>o</sub></b> (in)	1.846
Torsional Flexural Constant: <b>β</b> 1-(x <sub>o</sub> /R <sub>o</sub> ) <sup>2</sup>	0.405

## CODES & STANDARDS

- AISI S100, S240 & ICC ES ESR-4062
- ASTM A 1003, A 653, & C 955
- IBC 2012, 2015, 2018, 2021 & FBC 2020, 2023

## GREEN INFO

- LEED credits available
- Contact Technical Services for more information.

