

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 250S137-68

**MARINO\WARE PART #** 212SC14

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>	1-3/8"	<b>Tensile Strength Fu (KSI)</b>	65
<b>C. Lip (in)</b>	3/8"	<b>Design Thickness (in)</b>	0.0713
<b>Mils</b>	68	<b>Minimum Thickness (in)</b>	0.0677
<b>Available Finish</b>	G90	<b>Gauge</b>	14

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.390
Weight of Member: (lb/ft)	1.33
Moment of Inertia: <b>Ix</b> (in <sup>4</sup> )	0.386
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	0.309
Radius of Gyration: <b>Rx</b> (in)	0.994
Gross Moment of Inertia: <b>Iy</b> (in <sup>4</sup> )	0.095
Gross Radius of Gyration: <b>Ry</b> (in)	0.495

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>Ixe</b> (in <sup>4</sup> )	0.39
Section Modulus: <b>Sxe</b> (in <sup>3</sup> )	0.31
Allowable Local Bending Moment: <b>Mal</b> (in-k)	10.65*
Allowable Distortional Bending Moment: <b>Mad</b> (in-k)	9.13
Allowable strong axis shear away from punch: <b>Vag</b> (lb)	2866
Allowable strong axis shear at punch: <b>Vanet</b> (lb)	519

\* Allowable Bending Moment includes cold work of forming

### TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )	0.661
Torsional Warping Constant: <b>Cw</b> (in <sup>6</sup> )	0.138
Shear Center to Centroid on Principal X-axis: <b>Xo</b> (in)	-1.096
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.653
Radius of Gyration on the Centroid Principal axis: <b>Ro</b> (in)	1.561
Torsional Flexural Constant: $\beta 1 - (x_0/R_0)^2$	0.507

## 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.

