

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 1200T125-54

**MARINO\WARE PART #** 120ST16

05.40.00 Cold-Formed Metal Framing

## PROPERTIES:

<b>A. Web (in)</b>	12"	<b>Yield Strength Fy (KSI)</b>	50
<b>B. Flange (in)</b>	1-1/4"	<b>Tensile Strength Fu (KSI)</b>	65
<b>Mils</b>	54	<b>Design Thickness (in)</b>	0.0566
<b>Available Finish</b>	G90	<b>Minimum Thickness (in)</b>	0.0538
		<b>Gauge</b>	16

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.820
Weight of Member: (lb/ft)	2.79
Moment of Inertia: <b>I<sub>x</sub></b> (in <sup>4</sup> )	13.335
Section Modulus: <b>S<sub>x</sub></b> (in <sup>3</sup> )	2.186
Radius of Gyration: <b>R<sub>x</sub></b> (in)	4.033
Gross Moment of Inertia: <b>I<sub>y</sub></b> (in <sup>4</sup> )	0.060
Gross Radius of Gyration: <b>R<sub>y</sub></b> (in)	0.271

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>I<sub>x</sub></b> (in <sup>4</sup> )	11.460
Section Modulus: <b>S<sub>x</sub></b> (in <sup>3</sup> )	1.286
Allowable Bending Moment: <b>M<sub>a</sub></b> (in-k)	38.510
Allowable strong axis shear away from punch: <b>V<sub>ag</sub></b> (lb)	1354

### TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: <b>J<sub>x1000</sub></b> (in <sup>4</sup> )	0.876
Torsional Warping Constant: <b>C<sub>w</sub></b> (in <sup>6</sup> )	1.820
Shear Center to Centroid on Principal X-axis: <b>X<sub>o</sub></b> (in)	-0.333
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.230
Radius of Gyration on the Centroid Principal axis: <b>R<sub>o</sub></b> (in)	4.055
Torsional Flexural Constant: <b>β</b> [1-(x <sub>o</sub> /R <sub>o</sub> ) <sup>2</sup> ]	0.993

## 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.

Note: Web depth to thickness ratio (h/t) exceeds 200. Web stiffeners required at all support points and concentrated loads.

