

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 1200T200-97

**MARINO\WARE PART #** 120T212

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>	2"	<b>Tensile Strength Fu (KSI)</b>	65
<b>Mils</b>	97	<b>Design Thickness (in)</b>	0.1017
<b>Available Finish</b>	G90	<b>Minimum Thickness (in)</b>	0.0966
		<b>Gauge</b>	12

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	1.625
Weight of Member: (lb/ft)	5.53
Moment of Inertia: <b>Ix</b> (in <sup>4</sup> )	29.805
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	4.824
Radius of Gyration: <b>Rx</b> (in)	4.283
Gross Moment of Inertia: <b>Iy</b> (in <sup>4</sup> )	0.410
Gross Radius of Gyration: <b>Ry</b> (in)	0.502

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>Ix</b> (in <sup>4</sup> )	28.959
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	3.819
Allowable Bending Moment: <b>Ma</b> (in-k)	114.35
Allowable strong axis shear away from punch: <b>Vag</b> (lb)	7902

### TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )	5.602
Torsional Warping Constant: <b>Cw</b> (in <sup>6</sup> )	11.945
Shear Center to Centroid on Principal X-axis: <b>Xo</b> (in)	-0.714
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.476
Radius of Gyration on the Centroid Principal axis: <b>Ro</b> (in)	4.371
Torsional Flexural Constant: <b>β</b> [1-(xo/Ro) <sup>2</sup> ]	0.973

## 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.

