

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 1000T200-43

**MARINO\WARE PART #** 100T218

05.40.00 Cold-Formed Metal Framing

## PROPERTIES:

<b>A. Web (in)</b>	10"	<b>Yield Strength Fy (KSI)</b>	33
<b>B. Flange (in)</b>	2"	<b>Tensile Strength Fu (KSI)</b>	45
<b>Mils</b>	43	<b>Design Thickness (in)</b>	0.0451
<b>Available Finish</b>	G90	<b>Minimum Thickness (in)</b>	0.0428
		<b>Gauge</b>	18

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.631
Weight of Member: (lb/ft)	2.15
Moment of Inertia: <b>I<sub>x</sub></b> (in <sup>4</sup> )	8.361
Section Modulus: <b>S<sub>x</sub></b> (in <sup>3</sup> )	1.646
Radius of Gyration: <b>R<sub>x</sub></b> (in)	3.640
Gross Moment of Inertia: <b>I<sub>y</sub></b> (in <sup>4</sup> )	0.183
Gross Radius of Gyration: <b>R<sub>y</sub></b> (in)	0.539

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>I<sub>x</sub></b> (in <sup>4</sup> )	6.722
Section Modulus: <b>S<sub>x</sub></b> (in <sup>3</sup> )	0.861
Allowable Bending Moment: <b>M<sub>a</sub></b> (in-k)	17.010
Allowable strong axis shear away from punch: <b>V<sub>ag</sub></b> (lb)	822

### TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: <b>J<sub>x1000</sub></b> (in <sup>4</sup> )	0.428
Torsional Warping Constant: <b>C<sub>w</sub></b> (in <sup>6</sup> )	3.540
Shear Center to Centroid on Principal X-axis: <b>X<sub>o</sub></b> (in)	-0.813
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.534
Radius of Gyration on the Centroid Principal axis: <b>R<sub>o</sub></b> (in)	3.769
Torsional Flexural Constant: <b>β</b> [1-(x <sub>o</sub> /R <sub>o</sub> ) <sup>2</sup> ]	0.953

## 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.

