

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 800T125-33

**MARINO\WARE PART #** 800ST20

05.40.00 Cold-Formed Metal Framing

## PROPERTIES:

<b>A. Web (in)</b>	8"	<b>Yield Strength Fy (KSI)</b>	33
<b>B. Flange (in)</b>	1-1/4"	<b>Tensile Strength Fu (KSI)</b>	45
<b>Mils</b>	33	<b>Design Thickness (in)</b>	0.0346
<b>Available Finish</b>	G90	<b>Minimum Thickness (in)</b>	0.0329
		<b>Gauge</b>	20 STR

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.363
Weight of Member: (lb/ft)	1.24
Moment of Inertia: <b>Ix</b> (in <sup>4</sup> )	2.895
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	0.711
Radius of Gyration: <b>Rx</b> (in)	2.824
Gross Moment of Inertia: <b>Iy</b> (in <sup>4</sup> )	0.036
Gross Radius of Gyration: <b>Ry</b> (in)	0.313

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>Ix</b> (in <sup>4</sup> )	2.441
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	0.407
Allowable Bending Moment: <b>Ma</b> (in-k)	8.030
Allowable strong axis shear away from punch: <b>Vag</b> (lb)	465

### TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )	0.145
Torsional Warping Constant: <b>Cw</b> (in <sup>6</sup> )	0.456
Shear Center to Centroid on Principal X-axis: <b>Xo</b> (in)	-0.439
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.294
Radius of Gyration on the Centroid Principal axis: <b>Ro</b> (in)	2.875
Torsional Flexural Constant: <b>β</b> [1-(xo/Ro) <sup>2</sup> ]	0.977

## 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.

