

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 400VT250-33

**MARINO\WARE PART #** 400VT2533

## PROPERTIES:

<b>A. Web (in)</b>	4	<b>Yield Strength Fy (KSI)</b>	33
<b>B. Leg (in)</b>	2-1/2	<b>Design Thickness (in)</b>	0.0346
<b>Mils</b>	33	<b>Minimum Thickness (in)</b>	0.0329
<b>Finish</b>	G60	<b>Gauge</b>	20 STR

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Weight of Member: <b>(lb/ft)</b>	1.060
Cross Sectional Area: <b>A (in<sup>2</sup>)</b>	0.312
Moment of Inertia: <b>Ix (in<sup>4</sup>)</b>	0.923
Section Modulus about the X-axis: <b>Sx (in<sup>3</sup>)</b>	0.443
Radius of Gyration: <b>Rx (in)</b>	1.720
Gross Moment of Inertia: <b>Iy (in<sup>4</sup>)</b>	0.207
Section Modulus about the Y-axis: <b>Sy (in<sup>3</sup>)</b>	0.115
Gross Radius of Gyration: <b>Ry (in)</b>	0.815

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>Ixd (in<sup>4</sup>)</b>	0.623
Section Modulus: <b>Sxe (in<sup>3</sup>)</b>	0.226
Allowable Moment: <b>Ma (in-k)</b>	4.460

### TORSIONAL PROPERTIES

Shear Center to Centroid on Principal X-axis: <b>Xo (in)</b>	-1.660
St. Venant Torsional Constant: <b>Jx10<sup>3</sup> (in<sup>4</sup>)</b>	0.1240
Torsional Warping Constant: <b>Cw (in<sup>6</sup>)</b>	0.621
Radius of Gyration on the Centroid Principal axis: <b>Ro (in)</b>	2.520
Torsional Flexural Constant: <b>β=1-(xo/Ro)<sup>2</sup></b>	0.569

## CODES & STANDARDS

- Meets IBC 2009, 2012, 2015 & FBC 2017
- Meets or tested to: ASTM C 645, C 754, E 90, E 119 & AISI S220-11
- Galvanized steel sheet meets ASTM A 1003 & A 653
- Third Party Code Evaluation Report: ICC ES ESR#2620
- Multiple Fire Rated Assemblies

## GREEN INFO

- LEED v3 & LEED v4 credits available
- Contact Technical Services for more information



09.22.16 Non-Structural Metal Stud

