

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** Viper20 (250VT300-18)

**MARINO\WARE PART #** 212VT318

## PROPERTIES:

<b>A. Web (in)</b>	2-1/2	<b>Yield Strength Fy (KSI)</b>	70
<b>B. Leg (in)</b>	3	<b>Design Thickness (in)</b>	0.0190
<b>Mils</b>	18	<b>Minimum Thickness (in)</b>	0.0181
<b>Finish*</b>	G40EQ	<b>Gauge EQ</b>	20 DW

\*Or other ASTM A1003 Table 1 Coating

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

Weight of Member: <b>(lb/ft)</b>	0.5433
Cross Sectional Area: <b>A (in<sup>2</sup>)</b>	0.1598
Moment of Inertia: <b>Ix (in<sup>4</sup>)</b>	0.1790
Section Modulus about the X-axis: <b>Sx (in<sup>3</sup>)</b>	0.1450
Radius of Gyration: <b>Rx (in)</b>	1.0585
Gross Moment of Inertia: <b>Iy (in<sup>4</sup>)</b>	0.1554
Section Modulus about the Y-axis: <b>Sy (in<sup>3</sup>)</b>	0.0810
Gross Radius of Gyration: <b>Ry (in)</b>	0.9863

### EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: <b>Ixd (in<sup>4</sup>)</b>	0.0630
Section Modulus: <b>Sxe (in<sup>3</sup>)</b>	0.0333
Allowable Moment: <b>Ma (in-k)</b>	1.1657

### TORSIONAL PROPERTIES

Shear Center to Centroid on Principal X-axis: <b>Xo (in)</b>	-2.3638
St. Venant Torsional Constant: <b>Jx10<sup>3</sup> (in<sup>4</sup>)</b>	0.0192
Torsional Warping Constant: <b>Cw (in<sup>6</sup>)</b>	0.1844
Radius of Gyration on the Centroid Principal axis: <b>ro (in)</b>	2.7714
Torsional Flexural Constant: <b>β= 1-(xo/ro)<sup>2</sup></b>	0.2725

## CODES & STANDARDS

- Meets IBC 2015, 2018 & FBC 2017
- Meets or tested to: ASTM C 645, C 754, E 90, E 119 & AISI S220
- Steel sheet meets ASTM A 1003 & A 653
- Third Party Code Evaluation Report: CCRR-0154
- 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

