

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** Viper20 (250VT125-18)

**MARINO\WARE PART #** 212VT218

## PROPERTIES:

|                    |       |                                |        |
|--------------------|-------|--------------------------------|--------|
| <b>A. Web (in)</b> | 2-1/2 | <b>Yield Strength Fy (KSI)</b> | 50     |
| <b>B. Leg (in)</b> | 1-1/4 | <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>                             | 0.3172 |
| Cross Sectional Area: <b>A (in<sup>2</sup>)</b>              | 0.0933 |
| Moment of Inertia: <b>Ix (in<sup>4</sup>)</b>                | 0.0906 |
| Section Modulus about the X-axis: <b>Sx (in<sup>3</sup>)</b> | 0.0733 |
| Radius of Gyration: <b>Rx (in)</b>                           | 0.9855 |
| Gross Moment of Inertia: <b>Iy (in<sup>4</sup>)</b>          | 0.0143 |
| Section Modulus about the Y-axis: <b>Sy (in<sup>3</sup>)</b> | 0.0156 |
| Gross Radius of Gyration: <b>Ry (in)</b>                     | 0.3916 |

### EFFECTIVE SECTION PROPERTIES

|   |        |
|---|--------|
| Moment of Inertia-Deflection: <b>Ixd (in<sup>4</sup>)</b> | 0.0549 |
| Section Modulus: <b>Sxe (in<sup>3</sup>)</b>              | 0.0351 |
| Allowable Moment: <b>Ma (in-k)</b>                        | 0.8763 |

### TORSIONAL PROPERTIES

|   |         |
|---|---------|
| Shear Center to Centroid on Principal X-axis: <b>Xo (in)</b>            | -0.7472 |
| St. Venant Torsional Constant: <b>Jx10<sup>3</sup> (in<sup>4</sup>)</b> | 0.0011  |
| Torsional Warping Constant: <b>Cw (in<sup>6</sup>)</b>                  | 0.0161  |
| Radius of Gyration on the Centroid Principal axis: <b>ro (in)</b>       | 1.2972  |
| Torsional Flexural Constant: <b>β= 1-(xo/ro)<sup>2</sup></b>            | 0.6682  |

## CODES & STANDARDS

- Meets IBC 2015, 2018 & FBC 2017
- Meets or tested to: ASTM C 645, C 754, E 90, E 119 & AISI S220
- Galvanized 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

