

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** Viper20 (162VT125-18)

**MARINO\WARE PART #** 158VT18

**PROPERTIES:**

|                    |       |                                |        |
|--------------------|-------|--------------------------------|--------|
| <b>A. Web (in)</b> | 1-5/8 | <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>                             | 0.2606 |
| Cross Sectional Area: <b>A (in<sup>2</sup>)</b>              | 0.0767 |
| Moment of Inertia: <b>Ix (in<sup>4</sup>)</b>                | 0.0334 |
| Section Modulus about the X-axis: <b>Sx (in<sup>3</sup>)</b> | 0.0419 |
| Radius of Gyration: <b>Rx (in)</b>                           | 0.6602 |
| Gross Moment of Inertia: <b>Iy (in<sup>4</sup>)</b>          | 0.0127 |
| Section Modulus about the Y-axis: <b>Sy (in<sup>3</sup>)</b> | 0.0149 |
| Gross Radius of Gyration: <b>Ry (in)</b>                     | 0.4065 |

**EFFECTIVE SECTION PROPERTIES**

|   |        |
|---|--------|
| Moment of Inertia-Deflection: <b>Ixd (in<sup>4</sup>)</b> | 0.0187 |
| Section Modulus: <b>Sxe (in<sup>3</sup>)</b>              | 0.0177 |
| Allowable Moment: <b>Ma (in-k)</b>                        | 0.4432 |

**TORSIONAL PROPERTIES**

|   |         |
|---|---------|
| Shear Center to Centroid on Principal X-axis: <b>Xo (in)</b>            | -0.8778 |
| St. Venant Torsional Constant: <b>Jx10<sup>3</sup> (in<sup>4</sup>)</b> | 0.0092  |
| Torsional Warping Constant: <b>Cw (in<sup>6</sup>)</b>                  | 0.0059  |
| Radius of Gyration on the Centroid Principal axis: <b>ro (in)</b>       | 1.1712  |
| Torsional Flexural Constant: <b>β=1-(xo/ro)<sup>2</sup></b>             | 0.4383  |

**CODES & STANDARDS**

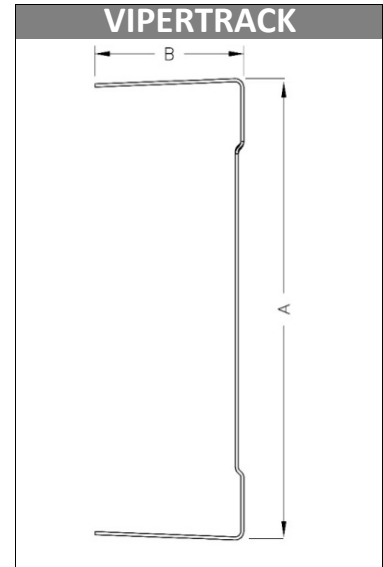
- Meets IBC 2015, 2018 & FBC 2017
- Meets or tested to: ASTM C 645, C 754, E 90, E 119 & AISI S220
- Steel sheet meets ASTM A 1003 & A 653
- Third Party Code Evaluation Report: CCRR-0154
- Multiple Fire Rated Assemblies

**GREEN INFO**

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



09.22.16 Non-Structural Metal Stud



For more information, please contact Marino\WARE Technical Services at 866-545-1545

This technical information reflects the most current information available and supersedes any and all publications, effective 11/3/19.

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