

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** Viper20 (400VT300-18)

**MARINO\WARE PART #** 400VT318

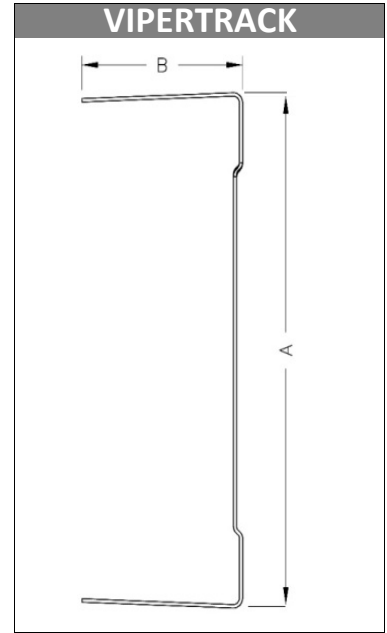


**PROPERTIES:**

<b>A. Web (in)</b>	4	<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

09.22.16 Non-Structural Metal Stud



**SECTION PROPERTIES**

**GROSS SECTION PROPERTIES**

Weight of Member: <b>(lb/ft)</b>	0.6402
Cross Sectional Area: <b>A (in<sup>2</sup>)</b>	0.1883
Moment of Inertia: <b>Ix (in<sup>4</sup>)</b>	0.5160
Section Modulus about the X-axis: <b>Sx (in<sup>3</sup>)</b>	0.2601
Radius of Gyration: <b>Rx (in)</b>	1.6555
Gross Moment of Inertia: <b>Iy (in<sup>4</sup>)</b>	0.1810
Section Modulus about the Y-axis: <b>Sy (in<sup>3</sup>)</b>	0.0873
Gross Radius of Gyration: <b>Ry (in)</b>	0.9805

**EFFECTIVE SECTION PROPERTIES**

Moment of Inertia-Deflection: <b>Ixd (in<sup>4</sup>)</b>	0.1844
Section Modulus: <b>Sxe (in<sup>3</sup>)</b>	0.0600
Allowable Moment: <b>Ma (in-k)</b>	2.0999

**TORSIONAL PROPERTIES**

Shear Center to Centroid on Principal X-axis: <b>Xo (in)</b>	-2.0917
St. Venant Torsional Constant: <b>Jx10<sup>3</sup> (in<sup>4</sup>)</b>	0.0227
Torsional Warping Constant: <b>Cw (in<sup>6</sup>)</b>	0.5256
Radius of Gyration on the Centroid Principal axis: <b>ro (in)</b>	2.8421
Torsional Flexural Constant: <b>β=1-(xo/ro)<sup>2</sup></b>	0.4583

**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: CRR-0154
- Multiple Fire Rated Assemblies

**GREEN INFO**

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



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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