

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 1200S250-118

**MARINO\WARE PART #** 120SE10

**05.40.00 Cold-Formed Metal Framing**

## PROPERTIES:

|                         |        |                                  |        |
|-------------------------|--------|----------------------------------|--------|
| <b>A. Web (in)</b>      | 12"    | <b>Yield Strength Fy (KSI)</b>   | 50     |
| <b>B. Flange (in)</b>   | 2-1/2" | <b>Tensile Strength Fu (KSI)</b> | 65     |
| <b>C. Lip (in)</b>      | 5/8"   | <b>Design Thickness (in)</b>     | 0.1242 |
| <b>Mils</b>             | 118    | <b>Minimum Thickness (in)</b>    | 0.1180 |
| <b>Available Finish</b> | G90    | <b>Gauge</b>                     | 10     |

## SECTION PROPERTIES

### GROSS SECTION PROPERTIES

|   |        |
|---|--------|
| Cross Sectional Area: <b>A</b> (in <sup>2</sup> )     | 2.15   |
| Weight of Member: (lb/ft)                             | 7.322  |
| Moment of Inertia: <b>Ix</b> (in <sup>4</sup> )       | 40.436 |
| Section Modulus: <b>Sx</b> (in <sup>3</sup> )         | 6.789  |
| Radius of Gyration: <b>Rx</b> (in)                    | 4.351  |
| Gross Moment of Inertia: <b>Iy</b> (in <sup>4</sup> ) | 1.307  |
| Gross Radius of Gyration: <b>Ry</b> (in)              | 0.779  |

### EFFECTIVE SECTION PROPERTIES

|  |        |
|--|--------|
| Moment of Inertia-Deflection: <b>Ixe</b> (in <sup>4</sup> )  | 40.724 |
| Section Modulus: <b>Sxe</b> (in <sup>3</sup> )               | 6.540  |
| Allowable Local Bending Moment: <b>Mal</b> (in-k)            | 195.82 |
| Allowable Distortional Bending Moment: <b>Mad</b> (in-k)     | 172.00 |
| Allowable strong axis shear away from punch: <b>Vag</b> (lb) | 14982  |
| Allowable strong axis shear at punch: <b>Vanet</b> (lb)      | 11034  |

### TORSIONAL SECTION PROPERTIES

|   |        |
|---|--------|
| St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )   | 11.065 |
| Torsional Warping Constant: <b>Cw</b> (in <sup>6</sup> )          | 38.619 |
| Shear Center to Centroid on Principal X-axis: <b>Xo</b> (in)      | -1.305 |
| Shear Center to Mid-Plane of the Web: <b>m</b> (in)               | 0.854  |
| Radius of Gyration on the Centroid Principal axis: <b>Ro</b> (in) | 4.609  |
| Torsional Flexural Constant: <b>β 1-(xo/Ro)<sup>2</sup></b>       | 0.920  |

## CODES & STANDARDS

- AISI S100, S240 & ICC ES ESR-4062
- ASTM A 1003, A 653, & C 955
- IBC 2012, 2015, 2018, 2021 & FBC 2020, 2023

## GREEN INFO

- LEED credits available
- Contact Technical Services for more information.

