

Marino\WARE® Product Submittal Data

PRODUCT NAME: 400S200-54

MARINO\WARE PART # 400SJ16

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

| | | | |
|-------------------------|------|----------------------------------|--------|
| A. Web (in) | 4" | Yield Strength Fy (KSI) | 50 |
| B. Flange (in) | 2" | Tensile Strength Fu (KSI) | 65 |
| C. Lip (in) | 5/8" | Design Thickness (in) | 0.0566 |
| Mils | 54 | Minimum Thickness (in) | 0.0538 |
| Available Finish | G60 | Gauge | 16 |

SECTION PROPERTIES

GROSS SECTION PROPERTIES

| | |
|---|-------|
| Cross Sectional Area: A (in ²) | 0.500 |
| Weight of Member: (lb/ft) | 1.70 |
| Moment of Inertia: Ix (in ⁴) | 1.292 |
| Section Modulus: Sx (in ³) | 0.646 |
| Radius of Gyration: Rx (in) | 1.608 |
| Gross Moment of Inertia: Iy (in ⁴) | 0.287 |
| Gross Radius of Gyration: Ry (in) | 0.758 |

EFFECTIVE SECTION PROPERTIES

| | |
|--|-------|
| Moment of Inertia-Deflection: Ixe (in ⁴) | 1.29 |
| Section Modulus: Sxe (in ³) | 0.55 |
| Allowable Local Bending Moment: Mal (in-k) | 16.43 |
| Allowable Distortional Bending Moment: Mad (in-k) | 16.60 |
| Allowable strong axis shear away from punch: Vag (lb) | 3372 |
| Allowable strong axis shear at punch: Vanet (lb) | 1223 |

TORSIONAL SECTION PROPERTIES

| | |
|---|--------|
| St. Venant Torsional Constant: Jx1000 (in ⁴) | 0.534 |
| Torsional Warping Constant: Cw (in ⁶) | 1.083 |
| Shear Center to Centroid on Principal X-axis: Xo (in) | -1.662 |
| Shear Center to Mid-Plane of the Web: m (in) | 0.993 |
| Radius of Gyration on the Centroid Principal axis: Ro (in) | 2.433 |
| Torsional Flexural Constant: β 1-(xo/Ro) ² | 0.534 |

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.

