

Marino\WARE® Product Submittal Data

PRODUCT NAME: 400S300-97

MARINO\WARE PART # 400SX12

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	4"	Yield Strength Fy (KSI)	50
B. Flange (in)	3"	Tensile Strength Fu (KSI)	65
C. Lip (in)	5/8"	Design Thickness (in)	0.1017
Mils	97	Minimum Thickness (in)	0.0966
Available Finish	G90	Gauge	12

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	1.07
Weight of Member: (lb/ft)	3.63
Moment of Inertia: Ix (in ⁴)	2.93
Section Modulus: Sx (in ³)	1.46
Radius of Gyration: Rx (in)	1.66
Gross Moment of Inertia: Iy (in ⁴)	1.26
Gross Radius of Gyration: Ry (in)	1.09

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	2.88
Section Modulus: Sxe (in ³)	1.31
Allowable Local Bending Moment: Mal (in-k)	39.1
Allowable Distortional Bending Moment: Mad (in-k)	38.9
Allowable strong axis shear away from punch: Vag (lb)	6658
Allowable strong axis shear at punch: Vanet (lb)	1207

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	3.68
Torsional Warping Constant: Cw (in ⁶)	4.62
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.53
Shear Center to Mid-Plane of the Web: m (in)	1.47
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.22
Torsional Flexural Constant: β 1-(xo/Ro) ²	0.379

CODES & STANDARDS

- AISI S100, S240
- 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.

