

Marino\WARE® Product Submittal Data

PRODUCT NAME: 400S300-54

MARINO\WARE PART # 400SX16

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)	0.0566
Mils	54	Minimum Thickness (in)	0.0538
Available Finish	G60	Gauge	16

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.613
Weight of Member: (lb/ft)	2.09
Moment of Inertia: I_x (in ⁴)	1.73
Section Modulus: S_x (in ³)	0.866
Radius of Gyration: R_x (in)	1.68
Gross Moment of Inertia: I_y (in ⁴)	0.760
Gross Radius of Gyration: R_y (in)	1.11

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	1.57
Section Modulus: S_{xe} (in ³)	0.591
Allowable Local Bending Moment: M_{al} (in-k)	17.7
Allowable Distortional Bending Moment: M_{ad} (in-k)	18.5
Allowable strong axis shear away from punch: V_{ag} (lb)	3369
Allowable strong axis shear at punch: V_{anet} (lb)	1222

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	0.655
Torsional Warping Constant: C_w (in ⁶)	2.80
Shear Center to Centroid on Principal X-axis: X_o (in)	-2.59
Shear Center to Mid-Plane of the Web: m (in)	1.50
Radius of Gyration on the Centroid Principal axis: R_o (in)	3.29
Torsional Flexural Constant: β 1-(x _o /R _o) ²	0.377

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.

