

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1400S350-97

MARINO\WARE PART # 140SW12

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	14"	Yield Strength Fy (KSI)	50
B. Flange (in)	3-1/2"	Tensile Strength Fu (KSI)	65
C. Lip (in)	1"	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)	2.26
Weight of Member: (lb/ft)	7.698
Moment of Inertia: I_x (in ⁴)	62.251
Section Modulus: S_x (in ³)	8.932
Radius of Gyration: R_x (in)	5.257
Gross Moment of Inertia: I_y (in ⁴)	3.296
Gross Radius of Gyration: R_y (in)	1.207

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	62.505
Section Modulus: S_{xe} (in ³)	8.190
Allowable Local Bending Moment: M_{al} (in-k)	245.22
Allowable Distortional Bending Moment: M_{ad} (in-k)	195.00
Allowable strong axis shear away from punch: V_{ag} (lb)	6938
Allowable strong axis shear at punch: V_{anet} (lb)	6938

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	7.799
Torsional Warping Constant: C_w (in ⁶)	130.43
Shear Center to Centroid on Principal X-axis: X_o (in)	-2.155
Shear Center to Mid-Plane of the Web: m (in)	1.373
Radius of Gyration on the Centroid Principal axis: R_o (in)	5.809
Torsional Flexural Constant: β 1-(x_o/R_o)²	0.862

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.

