

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1600S350-97

MARINO\WARE PART # 160SW12

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	16"	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	G60	Gauge	12

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	2.47
Weight of Member: (lb/ft)	8.390
Moment of Inertia: I_x (in ⁴)	86.292
Section Modulus: S_x (in ³)	10.786
Radius of Gyration: R_x (in)	5.916
Gross Moment of Inertia: I_y (in ⁴)	3.410
Gross Radius of Gyration: R_y (in)	1.176

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	82.842
Section Modulus: S_{xe} (in ³)	8.382
Allowable Local Bending Moment: M_{al} (in-k)	250.95
Allowable Distortional Bending Moment: M_{ad} (in-k)	224.00
Allowable strong axis shear away from punch: V_{ag} (lb)	6042
Allowable strong axis shear at punch: V_{anet} (lb)	6042

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	8.500
Torsional Warping Constant: C_w (in ⁶)	175.90
Shear Center to Centroid on Principal X-axis: X_o (in)	-2.022
Shear Center to Mid-Plane of the Web: m (in)	1.304
Radius of Gyration on the Centroid Principal axis: R_o (in)	6.362
Torsional Flexural Constant: β 1-(x_o/R_o)²	0.899

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.

