

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1200S350-97

MARINO\WARE PART # 120SW12

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	12"	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)	2.06
Weight of Member: (lb/ft)	7.005
Moment of Inertia: I_x (in ⁴)	43.277
Section Modulus: S_x (in ³)	7.213
Radius of Gyration: R_x (in)	4.585
Gross Moment of Inertia: I_y (in ⁴)	3.159
Gross Radius of Gyration: R_y (in)	1.239

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	43.267
Section Modulus: S_{xe} (in ³)	6.590
Allowable Local Bending Moment: M_{al} (in-k)	197.30
Allowable Distortional Bending Moment: M_{ad} (in-k)	166.00
Allowable strong axis shear away from punch: V_{ag} (lb)	8145
Allowable strong axis shear at punch: V_{anet} (lb)	7410

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	7.098
Torsional Warping Constant: C_w (in ⁶)	92.673
Shear Center to Centroid on Principal X-axis: X_o (in)	-2.310
Shear Center to Mid-Plane of the Web: m (in)	1.450
Radius of Gyration on the Centroid Principal axis: R_o (in)	5.281
Torsional Flexural Constant: β 1-(x _o /R _o) ²	0.809

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.

