

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1200S350-118

MARINO\WARE PART # 120SW10

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)	0.1242
Mils	118	Minimum Thickness (in)	0.1180
Available Finish	G90	Gauge	10

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	2.49
Weight of Member: (lb/ft)	8.485
Moment of Inertia: I_x (in ⁴)	52.002
Section Modulus: S_x (in ³)	8.667
Radius of Gyration: R_x (in)	4.567
Gross Moment of Inertia: I_y (in ⁴)	3.741
Gross Radius of Gyration: R_y (in)	1.225

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	51.990
Section Modulus: S_{xe} (in ³)	8.259
Allowable Local Bending Moment: M_{al} (in-k)	274*
Allowable Distortional Bending Moment: M_{ad} (in-k)	217.00
Allowable strong axis shear away from punch: V_{ag} (lb)	14982
Allowable strong axis shear at punch: V_{anet} (lb)	11034

* Allowable Bending Moment includes cold work of forming

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	12.821
Torsional Warping Constant: C_w (in ⁶)	110.30
Shear Center to Centroid on Principal X-axis: X_o (in)	-2.284
Shear Center to Mid-Plane of the Web: m (in)	1.436
Radius of Gyration on the Centroid Principal axis: R_o (in)	5.251
Torsional Flexural Constant: β 1-(x _o /R _o) ²	0.811

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.

