

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1400S250-118

MARINO\WARE PART # 140SJ10

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	14"	Yield Strength Fy (KSI)	50
B. Flange (in)	2-1/2"	Tensile Strength Fu (KSI)	65
C. Lip (in)	5/8"	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)	2.40
Weight of Member: (lb/ft)	8.17
Moment of Inertia: I_x (in ⁴)	59.676
Section Modulus: S_x (in ³)	8.525
Radius of Gyration: R_x (in)	4.986
Gross Moment of Inertia: I_y (in ⁴)	1.352
Gross Radius of Gyration: R_y (in)	0.750

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	59.50
Section Modulus: S_{xe} (in ³)	7.88
Allowable Bending Moment: M_a (in-k)	235.94
Allowable strong axis shear away from punch: V_{ag} (lb)	12745
Allowable strong axis shear at punch: V_{anet} (lb)	11287

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	12.342
Torsional Warping Constant: C_w (in ⁶)	54.927
Shear Center to Centroid on Principal X-axis: X_o (in)	-1.203
Shear Center to Mid-Plane of the Web: m (in)	0.798
Radius of Gyration on the Centroid Principal axis: R_o (in)	5.184
Torsional Flexural Constant: β [1-(x _o /R _o) ²]	0.946

CODES & STANDARDS

- AISI S100-12 & ICC ES ESR-4062
- Framing meets ASTM A 1003, A 653, & C 955
- Meets IBC 2015 & 2012, FBC 2014, CSSA code compliant

GREEN INFO

- LEED v3 & LEED v4 credits available
- Contact Technical Services for more information.

