

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1200S200-97

05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 120SJ12

PROPERTIES:

A. Web (in)	12"	Yield Strength Fy (KSI)	50
B. Flange (in)	2"	Tensile Strength Fu (KSI)	65
C. Lip (in)	5/8"	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)	1.68
Weight of Member: (lb/ft)	5.708
Moment of Inertia: Ix (in ⁴)	30.425
Section Modulus: Sx (in ³)	5.071
Radius of Gyration: Rx (in)	4.259
Gross Moment of Inertia: Iy (in ⁴)	0.635
Gross Radius of Gyration: Ry (in)	0.615

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	30.066
Section Modulus: Sxe (in ³)	4.660
Allowable Local Bending Moment: Mal (in-k)	139.51
Allowable Distortional Bending Moment: Mad (in-k)	122.00
Allowable strong axis shear away from punch: Vag (lb)	8145
Allowable strong axis shear at punch: Vanet (lb)	7410

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	5.783
Torsional Warping Constant: Cw (in ⁶)	19.150
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.987
Shear Center to Mid-Plane of the Web: m (in)	0.656
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.415
Torsional Flexural Constant: β 1-(xo/Ro) ²	0.950

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.

