

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 1200S200-118

**MARINO\WARE PART #** 120SJ10

**05.40.00 Cold-Formed Metal Framing**

**PROPERTIES:**

<b>A. Web (in)</b>	12"	<b>Yield Strength Fy (KSI)</b>	50
<b>B. Flange (in)</b>	2"	<b>Tensile Strength Fu (KSI)</b>	65
<b>C. Lip (in)</b>	5/8"	<b>Design Thickness (in)</b>	0.1242
<b>Mils</b>	118	<b>Minimum Thickness (in)</b>	0.1180
<b>Available Finish</b>	G90	<b>Gauge</b>	10

**SECTION PROPERTIES**

**GROSS SECTION PROPERTIES**

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	2.028
Weight of Member: (lb/ft)	6.90
Moment of Inertia: <b>Ix</b> (in <sup>4</sup> )	36.347
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	6.058
Radius of Gyration: <b>Rx</b> (in)	4.234
Gross Moment of Inertia: <b>Iy</b> (in <sup>4</sup> )	0.732
Gross Radius of Gyration: <b>Ry</b> (in)	0.601

**EFFECTIVE SECTION PROPERTIES**

Moment of Inertia-Deflection: <b>Ixe</b> (in <sup>4</sup> )	36.35
Section Modulus: <b>Sxe</b> (in <sup>3</sup> )	5.87
Allowable Bending Moment: <b>Ma</b> (in-k)	175.59
Allowable strong axis shear away from punch: <b>Vag</b> (lb)	14986
Allowable strong axis shear at punch: <b>Vanet</b> (lb)	11037

**TORSIONAL SECTION PROPERTIES**

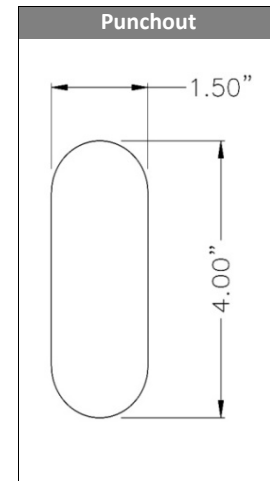
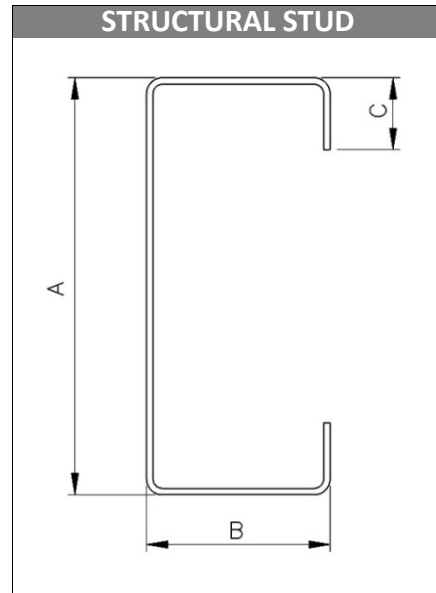
St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )	10.427
Torsional Warping Constant: <b>Cw</b> (in <sup>6</sup> )	22.451
Shear Center to Centroid on Principal X-axis: <b>Xo</b> (in)	-0.964
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.644
Radius of Gyration on the Centroid Principal axis: <b>Ro</b> (in)	4.384
Torsional Flexural Constant: <b>β</b> [1-(xo/Ro) <sup>2</sup> ]	0.952

**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.



For more information, please contact Marino\WARE Technical Services at 866-545-1545.

This technical information reflects the most current information available and supersedes any and all publications, effective 1/5/2017  
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