

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 250S137-43

**MARINO\WARE PART #** 212SC18

**05.40.00 Cold-Formed Metal Framing**

**PROPERTIES:**

<b>A. Web (in)</b>	2-1/2"	<b>Yield Strength Fy (KSI)</b>	33
<b>B. Flange (in)</b>	1-3/8"	<b>Tensile Strength Fu (KSI)</b>	45
<b>C. Lip (in)</b>	3/8"	<b>Design Thickness (in)</b>	0.0451
<b>Mils</b>	43	<b>Minimum Thickness (in)</b>	0.0428
<b>Available Finish</b>	G60	<b>Gauge</b>	18

**SECTION PROPERTIES**

**GROSS SECTION PROPERTIES**

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.255
Weight of Member: (lb/ft)	0.87
Moment of Inertia: <b>Ix</b> (in <sup>4</sup> )	0.261
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	0.208
Radius of Gyration: <b>Rx</b> (in)	1.010
Gross Moment of Inertia: <b>Iy</b> (in <sup>4</sup> )	0.067
Gross Radius of Gyration: <b>Ry</b> (in)	0.511

**EFFECTIVE SECTION PROPERTIES**

Moment of Inertia-Deflection: <b>Ixe</b> (in <sup>4</sup> )	0.26
Section Modulus: <b>Sxe</b> (in <sup>3</sup> )	0.21
Allowable Local Bending Moment: <b>Mal</b> (in-k)	4.53*
Allowable Distortional Bending Moment: <b>Mad</b> (in-k)	4.02
Allowable strong axis shear away from punch: <b>Vag</b> (lb)	1265
Allowable strong axis shear at punch: <b>Vanet</b> (lb)	394

\* Allowable Moment includes cold work of forming

**TORSIONAL SECTION PROPERTIES**

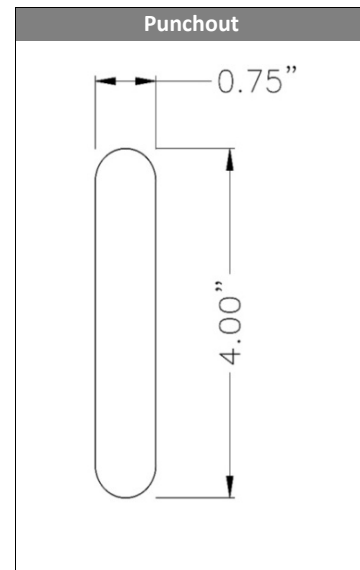
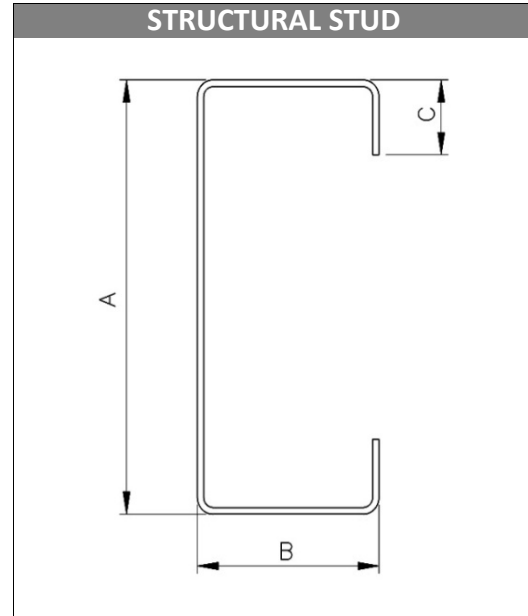
St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )	0.173
Torsional Warping Constant: <b>Cw</b> (in <sup>6</sup> )	0.096
Shear Center to Centroid on Principal X-axis: <b>Xo</b> (in)	-1.129
Shear Center to Mid-Plane of the Web: <b>m</b> (in)	0.670
Radius of Gyration on the Centroid Principal axis: <b>Ro</b> (in)	1.599
Torsional Flexural Constant: <b>β</b> 1-(xo/Ro) <sup>2</sup>	0.501

**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.



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 7/5/2023  
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