

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 400SR250-43

**05.40.00 Cold-Formed Metal Framing**

**MARINO\WARE PART #** 400RE18

**PROPERTIES:**

<b>A. Web (in)</b>	4.00"	<b>Yield Strength F<sub>y</sub> (KSI)</b>	33
<b>B. Flange (in)</b>	2.5"	<b>Tensile Strength F<sub>u</sub> (KSI)</b>	45
<b>C. Lip (in)</b>	0.625"	<b>Design Thickness (in)</b>	0.0451
<b>Mils</b>	43	<b>Minimum Thickness (in)</b>	0.0428
<b>Available Finish</b>	CP60, CP90	<b>Gauge</b>	18

**SECTION PROPERTIES**

**GROSS SECTION PROPERTIES**

Weight of Member: (lb/ft)	1.40
Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.396
Moment of Inertia: <b>I<sub>x</sub></b> (in <sup>4</sup> )	1.22
Section Modulus: <b>S<sub>x</sub></b> (in <sup>3</sup> )	0.612
Radius of Gyration: <b>R<sub>x</sub></b> (in)	1.76
Gross Moment of Inertia: <b>I<sub>y</sub></b> (in <sup>4</sup> )	0.336
Gross Radius of Gyration: <b>R<sub>y</sub></b> (in)	0.922

**EFFECTIVE SECTION PROPERTIES**

Moment of Inertia-Deflection: <b>I<sub>xed</sub></b> (in <sup>4</sup> )	1.22
Section Modulus: <b>S<sub>xe</sub></b> (in <sup>3</sup> )	0.535
Allowable Bending Moment: <b>Ma</b> (in-k)	10.6
Allowable Shear Force: <b>Va</b> (K)	0.346

**TORSIONAL SECTION PROPERTIES**

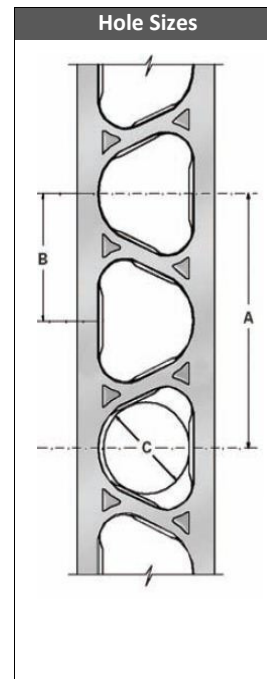
St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )	0.268
Torsional Warping Constant: <b>C<sub>w</sub></b> (in <sup>6</sup> )	1.46
Distance From Shear Center To Centroid Principle x-axis <b>x<sub>o</sub></b> (in.)	-2.30
Distance From Shear Center to Mid-Plane of Web <b>m</b> (in.)	1.27
Radius of Gyration on the Centroid Principal axis: <b>r<sub>o</sub></b> (in.)	3.04
$1 - (x_o/r_o)^2 = \beta$	0.428
Critical Unbraced Length, lateral torsional buckling excluded <b>L<sub>u</sub></b> (in.)	60.7

**CODES & STANDARDS**

- Meets ASTM A 1003, A 653, C955 & AISI S240
- Coating meets ASTM C 955 / AISI S240
- Meets IBC 2021, 2018
- IAPMO ES ER-0781

**GREEN INFO**

- LEED v4 credits available
- Contact Technical Services for more information



Section	A (in)	B (in)	C
3-5/8"	7.0	3.5	1-3/4
4"	7.0	3.5	1-3/4
6"	8.1	4.0	2-7/8



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

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