

# Marino\WARE® Product Submittal Data

**PRODUCT NAME:** 400QFH300-33

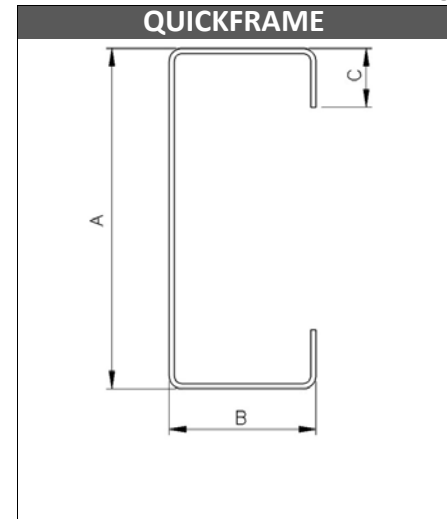
**MARINO\WARE PART #** 400QFH30033



**PROPERTIES:**

<b>A. Web (in)</b>	4	<b>Yield Strength Fy (KSI)</b>	33
<b>B. Flange (in)</b>	3	<b>Tensile Strength Fu (KSI)</b>	45
<b>C. Lip (in)</b>	1	<b>Design Thickness (in)</b>	0.0346
<b>Mils</b>	33	<b>Minimum Thickness (in)</b>	0.0329
<b>Available Finish</b>	G60, G90	<b>Gauge</b>	20 STR

**05.40.00 Cold-Formed Metal Framing**



**SECTION PROPERTIES**

**GROSS SECTION PROPERTIES**

Cross Sectional Area: <b>A</b> (in <sup>2</sup> )	0.405
Weight of Member: <b>(lb/ft)</b>	1.38
Moment of Inertia: <b>Ix</b> (in <sup>4</sup> )	1.12
Section Modulus: <b>Sx</b> (in <sup>3</sup> )	0.561
Radius of Gyration: <b>Rx</b> (in)	1.66
Moment of Inertia: <b>Iy</b> (in <sup>4</sup> )	0.563
Section Modulus: <b>Sy</b> (in <sup>3</sup> )	0.321
Radius of Gyration: <b>Ry</b> (in)	1.18

**EFFECTIVE SECTION PROPERTIES - Unpunched**

Moment of Inertia-Deflection: <b>Ixe</b> (in <sup>4</sup> )	0.989
Section Modulus: <b>Sxe</b> (in <sup>3</sup> )	0.407
Allowable Bending Moment: <b>Max</b> (in-k)	8.04
Allowable Bending Moment: <b>Madx</b> (in-k)	8.98
Moment of Inertia: <b>Iye</b> (in <sup>4</sup> )	0.514
Section Modulus: <b>Sye</b> (in <sup>3</sup> )	0.261
Allowable Bending Moment: <b>Maly</b> (in-k)	5.16
Allowable Bending Moment: <b>Mady</b> (in-k)	5.21
Allowable shear: <b>Vag</b> (k)	976

**TORSIONAL SECTION PROPERTIES**

St. Venant Torsional Constant: <b>Jx1000</b> (in <sup>4</sup> )	0.162
Torsional Warping Constant: <b>Cw</b> (in <sup>6</sup> )	2.84
Shear Center to Centroid on Principal X-axis: <b>Xo</b> (in)	-2.91
Radius of Gyration on the Centroid Principal axis: <b>Ro</b> (in)	3.56
Torsional Flexural Constant: <b>β</b> = [1-(xo/Ro) <sup>2</sup> ]	0.329

\* 33 mil and 43 mil calculated with the Direct strength Method

**CODES & STANDARDS**

- AISI S100-2016
- Meets IBC 2015 & 2012
- ASTM C 955 compliant
- Galvanized steel sheet meets ASTM A 1003 & A 653

**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.

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