

Marino\WARE® Product Submittal Data

PRODUCT NAME: 400T200-33

MARINO\WARE PART # 400T220

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	4"	Yield Strength Fy (KSI)	33
B. Flange (in)	2"	Tensile Strength Fu (KSI)	45
Mils	33	Design Thickness (in)	0.0346
Available Finish	G90	Minimum Thickness (in)	0.0329
		Gauge	20 STR

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.277
Weight of Member: (lb/ft)	0.94
Moment of Inertia: I_x (in ⁴)	0.768
Section Modulus: S_x (in ³)	0.371
Radius of Gyration: R_x (in)	1.666
Gross Moment of Inertia: I_y (in ⁴)	0.113
Gross Radius of Gyration: R_y (in)	0.639

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_x (in ⁴)	0.581
Section Modulus: S_x (in ³)	0.220
Allowable Bending Moment: M_a (in-k)	4.340
Allowable strong axis shear away from punch: V_{ag} (lb)	940

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	0.110
Torsional Warping Constant: C_w (in ⁶)	0.336
Shear Center to Centroid on Principal X-axis: X_o (in)	-1.229
Shear Center to Mid-Plane of the Web: m (in)	0.737
Radius of Gyration on the Centroid Principal axis: R_o (in)	2.166
Torsional Flexural Constant: β [1-(x _o /R _o) ²]	0.678

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.

