

Marino\WARE® Product Submittal Data

PRODUCT NAME: 250T200-33

MARINO\WARE PART # 212T220

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	2-1/2"	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)	0.225
Weight of Member: (lb/ft)	0.76
Moment of Inertia: I_x (in ⁴)	0.280
Section Modulus: S_x (in ³)	0.212
Radius of Gyration: R_x (in)	1.117
Gross Moment of Inertia: I_y (in ⁴)	0.097
Gross Radius of Gyration: R_y (in)	0.658

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_x (in ⁴)	0.203
Section Modulus: S_x (in ³)	0.112
Allowable Bending Moment: M_a (in-k)	2.220
Allowable strong axis shear away from punch: V_{ag} (lb)	1024

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	0.090
Torsional Warping Constant: C_w (in ⁶)	0.118
Shear Center to Centroid on Principal X-axis: X_o (in)	-1.418
Shear Center to Mid-Plane of the Web: m (in)	0.813
Radius of Gyration on the Centroid Principal axis: R_o (in)	1.921
Torsional Flexural Constant: β [1-(x _o /R _o) ²]	0.455

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.

