

Marino\WARE® Product Submittal Data

PRODUCT NAME: 250T125-43

05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 212ST18

PROPERTIES:

A. Web (in)	2-1/2"	Yield Strength Fy (KSI)	33
B. Flange (in)	1-1/4"	Tensile Strength Fu (KSI)	45
Mils	43	Design Thickness (in)	0.0451
Available Finish	G90	Minimum Thickness (in)	0.0428
		Gauge	18

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.225
Weight of Member: (lb/ft)	0.77
Moment of Inertia: Ix (in ⁴)	0.250
Section Modulus: Sx (in ³)	0.188
Radius of Gyration: Rx (in)	1.055
Gross Moment of Inertia: Iy (in ⁴)	0.035
Gross Radius of Gyration: Ry (in)	0.395

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ix (in ⁴)	0.231
Section Modulus: Sx (in ³)	0.147
Allowable Bending Moment: Ma (in-k)	2.910
Allowable strong axis shear away from punch: Vag (lb)	1356

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	0.153
Torsional Warping Constant: Cw (in ⁶)	0.042
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.755
Shear Center to Mid-Plane of the Web: m (in)	0.453
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.356
Torsional Flexural Constant: β [1-(xo/Ro) ²]	0.690

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.

