

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1000T125-43

05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 100ST18

PROPERTIES:

A. Web (in)	10"	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	G60	Minimum Thickness (in)	0.0428
		Gauge	18

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.563
Weight of Member: (lb/ft)	1.92
Moment of Inertia: I_x (in ⁴)	6.630
Section Modulus: S_x (in ³)	1.305
Radius of Gyration: R_x (in)	3.431
Gross Moment of Inertia: I_y (in ⁴)	0.047
Gross Radius of Gyration: R_y (in)	0.290

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_x (in ⁴)	5.886
Section Modulus: S_x (in ³)	0.819
Allowable Bending Moment: M_a (in-k)	16.190
Allowable strong axis shear away from punch: V_{ag} (lb)	822

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	0.382
Torsional Warping Constant: C_w (in ⁶)	0.973
Shear Center to Centroid on Principal X-axis: X_o (in)	-0.379
Shear Center to Mid-Plane of the Web: m (in)	0.259
Radius of Gyration on the Centroid Principal axis: R_o (in)	3.464
Torsional Flexural Constant: β [1-(x _o /R _o) ²]	0.988

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.

Note: Web depth to thickness ratio (h/t) exceeds 200. Web stiffeners required at all support points and concentrated loads.

