

Marino\WARE® Product Submittal Data

PRODUCT NAME: 250S137-54

MARINO\WARE PART # 212SC16

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	2-1/2"	Yield Strength Fy (KSI)	50
B. Flange (in)	1-3/8"	Tensile Strength Fu (KSI)	65
C. Lip (in)	3/8"	Design Thickness (in)	0.0566
Mils	54	Minimum Thickness (in)	0.0538
Available Finish	G90	Gauge	16

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.316
Weight of Member: (lb/ft)	1.07
Moment of Inertia: Ix (in ⁴)	0.318
Section Modulus: Sx (in ³)	0.255
Radius of Gyration: Rx (in)	1.004
Gross Moment of Inertia: Iy (in ⁴)	0.080
Gross Radius of Gyration: Ry (in)	0.504

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	0.32
Section Modulus: Sxe (in ³)	0.24
Allowable Local Bending Moment: Mal (in-k)	8.22*
Allowable Distortional Bending Moment: Mad (in-k)	7.06
Allowable strong axis shear away from punch: Vag (lb)	2353
Allowable strong axis shear at punch: Vanet (lb)	565

* Allowable Moment includes cold work of forming

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	0.337
Torsional Warping Constant: Cw (in ⁶)	0.115
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.115
Shear Center to Mid-Plane of the Web: m (in)	0.663
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.583
Torsional Flexural Constant: β 1-(xo/Ro) ²	0.504

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.

