

Marino\WARE® Product Submittal Data

PRODUCT NAME: 250S162-33

MARINO\WARE PART # 212SS20

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	2-1/2"	Yield Strength Fy (KSI)	33
B. Flange (in)	1-5/8"	Tensile Strength Fu (KSI)	45
C. Lip (in)	1/2"	Design Thickness (in)	0.0346
Mils	33	Minimum Thickness (in)	0.0329
Available Finish	G90	Gauge	20 STR

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.223
Weight of Member: (lb/ft)	0.76
Moment of Inertia: Ix (in ⁴)	0.235
Section Modulus: Sx (in ³)	0.188
Radius of Gyration: Rx (in)	1.027
Gross Moment of Inertia: Iy (in ⁴)	0.087
Gross Radius of Gyration: Ry (in)	0.624

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	0.24
Section Modulus: Sxe (in ³)	0.18
Allowable Local Bending Moment: Mal (in-k)	3.55
Allowable Disportiaonal Bending Moment: Mad (in-k)	3.39
Allowable strong axis shear away from punch: Vag (lb)	975
Allowable strong axis shear at punch: Vanet (lb)	399

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	0.089
Torsional Warping Constant: Cw (in ⁶)	0.146
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.470
Shear Center to Mid-Plane of the Web: m (in)	0.859
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.898
Torsional Flexural Constant: β 1-(xo/Ro) ²	0.401

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.

