Marino\WARE® Product Submittal Data

PRODUCT NAME: **1200S250-54**

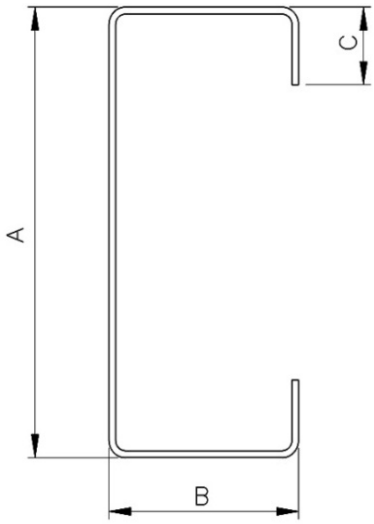
05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 120SE16

PROPERTIES:

A. Web (in)	12"	**Yield Strength Fy (KSI)**	50
B. Flange (in)	2-1/2"	**Tensile Strength Fu (KSI)**	65
C. Lip (in)	5/8"	**Design Thickness (in)**	0.0566
Mils	54	**Minimum Thickness (in)**	0.0538
Available Finish	G60	**Gauge**	16

STRUCTURAL STUD



SECTION PROPERTIES

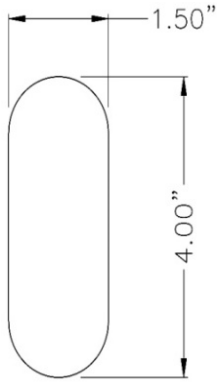
GROSS SECTION PROPERTIES

Cross Sectional Area: **A** (in^2)	1.01
Weight of Member: (lb/ft)	3.434
Moment of Inertia: **Ix** (in^4)	19.686
Section Modulus: **Sx** (in^3)	3.281
Radius of Gyration: **Rx** (in)	4.417
Gross Moment of Inertia: **Iy** (in^4)	0.683
Gross Radius of Gyration: **Ry** (in)	0.823

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: **Ixe** (in^4)	17.261
Section Modulus: **Sxe** (in^3)	2.149
Allowable Local Bending Moment: **Mal** (in-k)	64.34
Allowable Distortional Bending Moment: **Mad** (in-k)	56.60
Allowable strong axis shear away from punch: **Vag** (lb)	1377
Allowable strong axis shear at punch: **Vanet** (lb)	1377

Punchout



TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: **Jx1000** (in^4)	1.078
Torsional Warping Constant: **Cw** (in^6)	19.505
Shear Center to Centroid on Principal X-axis: **Xo** (in)	-1.378
Shear Center to Mid-Plane of the Web: **m** (in)	0.892
Radius of Gyration on the Centroid Principal axis: **Ro** (in)	4.699
Torsional Flexural Constant: **β** $1-(xo/Ro)^2$	0.914

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.