Marino\WARE® Product Submittal Data

PRODUCT NAME: **1400S250-118**

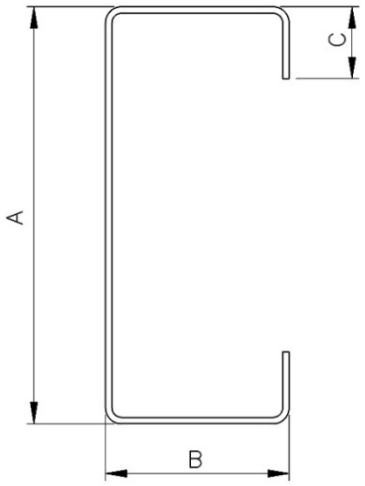
05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 140SJ10

PROPERTIES:

A. Web (in)	14"	**Yield Strength Fy (KSI)**	50
B. Flange (in)	2-1/2"	**Tensile Strength Fu (KSI)**	65
C. Lip (in)	5/8"	**Design Thickness (in)**	0.1242
Mils	118	**Minimum Thickness (in)**	0.1180
Available Finish	G60	**Gauge**	10

STRUCTURAL STUD



SECTION PROPERTIES

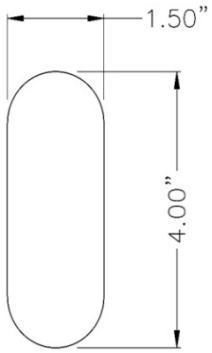
GROSS SECTION PROPERTIES

Cross Sectional Area: **A** (in^2)	2.40
Weight of Member: (lb/ft)	8.17
Moment of Inertia: **Ix** (in^4)	59.676
Section Modulus: **Sx** (in^3)	8.525
Radius of Gyration: **Rx** (in)	4.986
Gross Moment of Inertia: **Iy** (in^4)	1.352
Gross Radius of Gyration: **Ry** (in)	0.750

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: **Ixe** (in^4)	59.50
Section Modulus: **Sxe** (in^3)	7.88
Allowable Bending Moment: **Ma** (in-k)	235.94
Allowable strong axis shear away from punch: **Vag** (lb)	12745
Allowable strong axis shear at punch: **Vanet** (lb)	11287

Punchout



TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: **Jx1000** (in^4)	12.342
Torsional Warping Constant: **Cw** (in^6)	54.927
Shear Center to Centroid on Principal X-axis: **Xo** (in)	-1.203
Shear Center to Mid-Plane of the Web: **m** (in)	0.798
Radius of Gyration on the Centroid Principal axis: **Ro** (in)	5.184
Torsional Flexural Constant: **β** $[1-(xo/Ro)^2]$	0.946

CODES & STANDARDS

- AISI S100-12 & ICC ES ESR-4062
- Framing meets ASTM A 1003, A 653, & C 955
- Meets IBC 2015 & 2012, FBC 2014, CSSA code compliant

GREEN INFO

- LEED v3 & LEED v4 credits available
- Contact Technical Services for more information.

This technical information reflects the most current information available and supersedes any and all publications, effective 1/5/2017

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