Marino\WARE® Product Submittal Data

PRODUCT NAME: **1600S350-68**

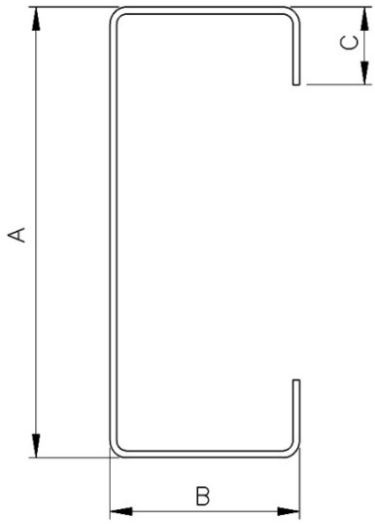
MARINO\WARE PART # 160SW14

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	16"	**Yield Strength Fy (KSI)**	50
B. Flange (in)	3-1/2"	**Tensile Strength Fu (KSI)**	65
C. Lip (in)	1"	**Design Thickness (in)**	0.0713
Mils	68	**Minimum Thickness (in)**	0.0677
Available Finish	G90	**Gauge**	14

STRUCTURAL STUD



SECTION PROPERTIES

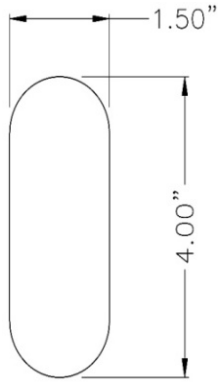
GROSS SECTION PROPERTIES

Cross Sectional Area: **A** (in^2)	1.75
Weight of Member: (lb/ft)	5.937
Moment of Inertia: **Ix** (in^4)	61.638
Section Modulus: **Sx** (in^3)	7.705
Radius of Gyration: **Rx** (in)	5.944
Gross Moment of Inertia: **Iy** (in^4)	2.490
Gross Radius of Gyration: **Ry** (in)	1.195

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: **Ixe** (in^4)	55.181
Section Modulus: **Sxe** (in^3)	5.180
Allowable Local Bending Moment: **Mal** (in-k)	155.09
Allowable Distortional Bending Moment: **Mad** (in-k)	135.00
Allowable strong axis shear away from punch: **Vag** (lb)	2062
Allowable strong axis shear at punch: **Vanet** (lb)	2062

Punchout



TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: **Jx1000** (in^4)	2.957
Torsional Warping Constant: **Cw** (in^6)	127.37
Shear Center to Centroid on Principal X-axis: **Xo** (in)	-2.055
Shear Center to Mid-Plane of the Web: **m** (in)	1.322
Radius of Gyration on the Centroid Principal axis: **Ro** (in)	6.402
Torsional Flexural Constant: **β** $1-(xo/Ro)^2$	0.897

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.