

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1200S300-54

MARINO\WARE PART # 120SX16

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	12"	Yield Strength Fy (KSI)	50
B. Flange (in)	3"	Tensile Strength Fu (KSI)	65
C. Lip (in)	5/8"	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)	1.07
Weight of Member: (lb/ft)	3.626
Moment of Inertia: Ix (in ⁴)	21.704
Section Modulus: Sx (in ³)	3.617
Radius of Gyration: Rx (in)	4.513
Gross Moment of Inertia: Iy (in ⁴)	1.074
Gross Radius of Gyration: Ry (in)	1.004

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	18.842
Section Modulus: Sxe (in ³)	2.273
Allowable Local Bending Moment: Mal (in-k)	68.04
Allowable Distortional Bending Moment: Mad (in-k)	58.70
Allowable strong axis shear away from punch: Vag (lb)	1377
Allowable strong axis shear at punch: Vanet (lb)	1377

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	1.138
Torsional Warping Constant: Cw (in ⁶)	30.051
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.743
Shear Center to Mid-Plane of the Web: m (in)	1.111
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.941
Torsional Flexural Constant: β 1-(xo/Ro) ²	0.876

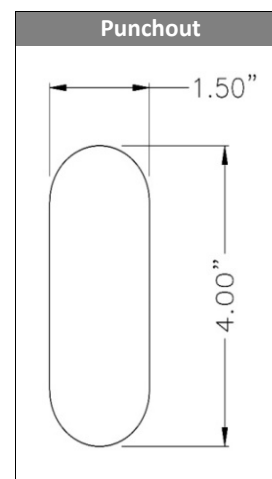
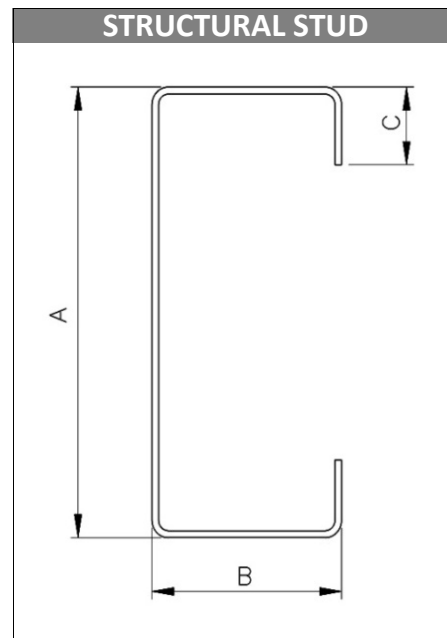
CODES & STANDARDS

- 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.



For more information, please contact Marino\WARE Technical Services at 866-545-1545.

This technical information reflects the most current information available and supersedes any and all publications, effective 11/5/2023
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