

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1200S300-118

MARINO\WARE PART # 120SX10

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)	0.1242
Mils	118	Minimum Thickness (in)	0.1180
Available Finish	G90	Gauge	10

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	2.28
Weight of Member: (lb/ft)	7.745
Moment of Inertia: I_x (in ⁴)	45.116
Section Modulus: S_x (in ³)	7.519
Radius of Gyration: R_x (in)	4.452
Gross Moment of Inertia: I_y (in ⁴)	2.096
Gross Radius of Gyration: R_y (in)	0.960

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	45.103
Section Modulus: S_{xe} (in ³)	7.231
Allowable Local Bending Moment: M_{al} (in-k)	244*
Allowable Distortional Bending Moment: M_{ad} (in-k)	180.00
Allowable strong axis shear away from punch: V_{ag} (lb)	14982
Allowable strong axis shear at punch: V_{anet} (lb)	11034

* Allowable Bending Moment includes cold work of forming

TORSIONAL SECTION PROPERTIES

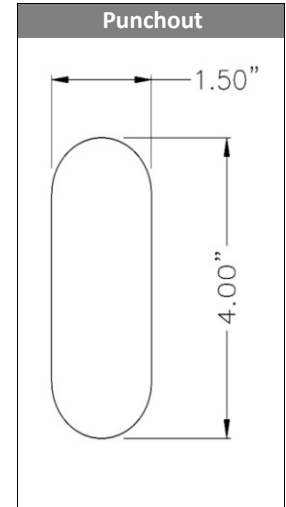
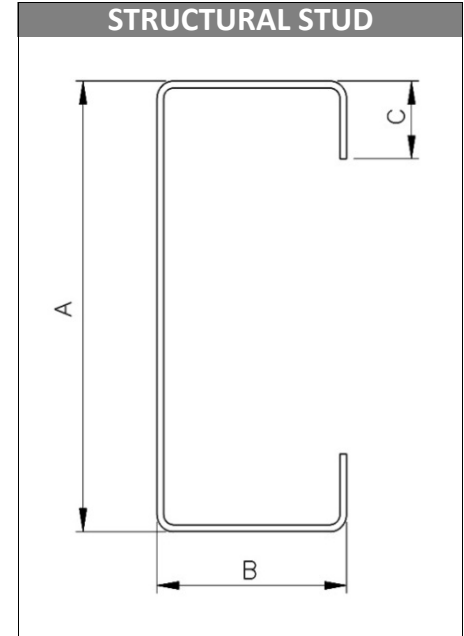
St. Venant Torsional Constant: J_{x1000} (in ⁴)	11.703
Torsional Warping Constant: C_w (in ⁶)	60.251
Shear Center to Centroid on Principal X-axis: X_o (in)	-1.666
Shear Center to Mid-Plane of the Web: m (in)	1.071
Radius of Gyration on the Centroid Principal axis: R_o (in)	4.849
Torsional Flexural Constant: β 1-(x _o /R _o) ²	0.882

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.



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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