

Marino\WARE® Product Submittal Data

PRODUCT NAME: 1000S162-43

05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 100SS18

PROPERTIES:

A. Web (in)	10"	Yield Strength Fy (KSI)	33
B. Flange (in)	1-5/8"	Tensile Strength Fu (KSI)	45
C. Lip (in)	1/2"	Design Thickness (in)	0.0451
Mils	43	Minimum Thickness (in)	0.0428
Available Finish	G90	Gauge	18

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.627
Weight of Member: (lb/ft)	2.134
Moment of Inertia: I_x (in ⁴)	8.028
Section Modulus: S_x (in ³)	1.606
Radius of Gyration: R_x (in)	3.577
Gross Moment of Inertia: I_y (in ⁴)	0.168
Gross Radius of Gyration: R_y (in)	0.518

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xe} (in ⁴)	7.479
Section Modulus: S_{xe} (in ³)	1.302
Allowable Local Bending Moment: M_{al} (in-k)	25.74
Allowable Distortional Bending Moment: M_{ad} (in-k)	21.70
Allowable strong axis shear away from punch: V_{ag} (lb)	836
Allowable strong axis shear at punch: V_{anet} (lb)	836

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: J_{x1000} (in ⁴)	0.425
Torsional Warping Constant: C_w (in ⁶)	3.430
Shear Center to Centroid on Principal X-axis: X_o (in)	-0.823
Shear Center to Mid-Plane of the Web: m (in)	0.545
Radius of Gyration on the Centroid Principal axis: R_o (in)	3.707
Torsional Flexural Constant: β 1-(x _o /R _o) ²	0.951

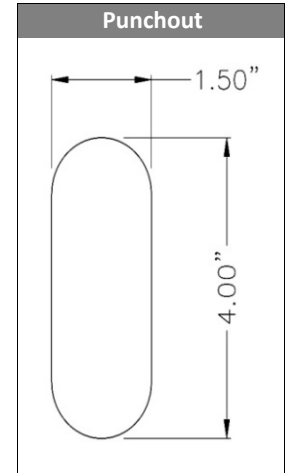
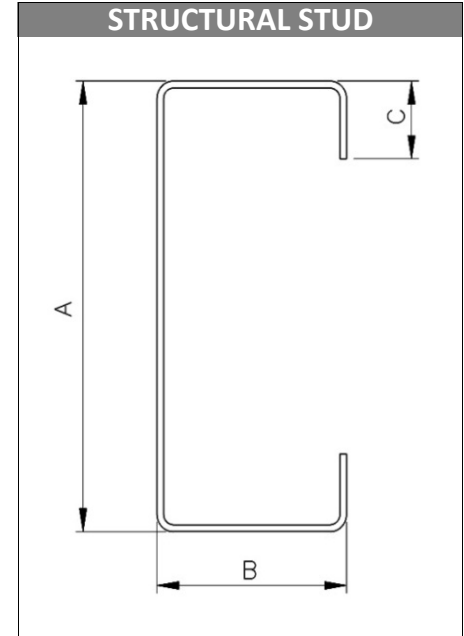
CODES & STANDARDS

- 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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