

Marino\WARE® Product Submittal Data

PRODUCT NAME: 250S162-43

MARINO\WARE PART # 212SS18

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

| | | | |
|-------------------------|--------|----------------------------------|--------|
| A. Web (in) | 2-1/2" | 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 | G60 | Gauge | 18 |

SECTION PROPERTIES

GROSS SECTION PROPERTIES

| | |
|--|-------|
| Cross Sectional Area: A (in ²) | 0.289 |
| Weight of Member: (lb/ft) | 0.98 |
| Moment of Inertia: I_x (in ⁴) | 0.302 |
| Section Modulus: S_x (in ³) | 0.242 |
| Radius of Gyration: R_x (in) | 1.022 |
| Gross Moment of Inertia: I_y (in ⁴) | 0.111 |
| Gross Radius of Gyration: R_y (in) | 0.620 |

EFFECTIVE SECTION PROPERTIES

| | |
|---|-------|
| Moment of Inertia-Deflection: I_{xe} (in ⁴) | 0.30 |
| Section Modulus: S_{xe} (in ³) | 0.24 |
| Allowable Local Bending Moment: M_{al} (in-k) | 5.22* |
| Allowable Distortional Bending Moment: M_{ad} (in-k) | 4.70 |
| Allowable strong axis shear away from punch: V_{ag} (lb) | 1265 |
| Allowable strong axis shear at punch: V_{anet} (lb) | 394 |

* Allowable Bending Moment includes cold work of forming

TORSIONAL SECTION PROPERTIES

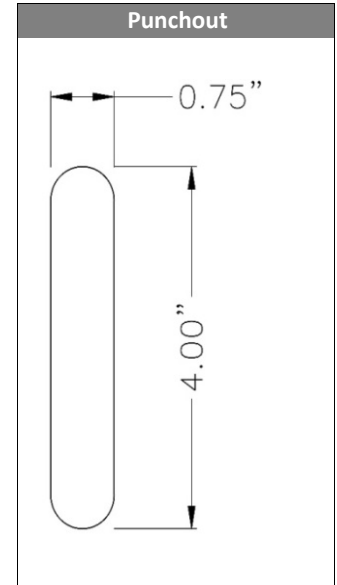
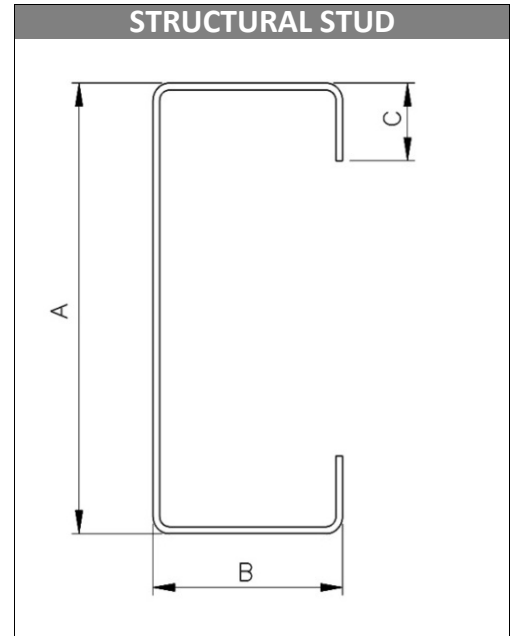
| | |
|--|--------|
| St. Venant Torsional Constant: J_{x1000} (in ⁴) | 0.196 |
| Torsional Warping Constant: C_w (in ⁶) | 0.184 |
| Shear Center to Centroid on Principal X-axis: X_o (in) | -1.457 |
| Shear Center to Mid-Plane of the Web: m (in) | 0.852 |
| Radius of Gyration on the Centroid Principal axis: R_o (in) | 1.885 |
| Torsional Flexural Constant: β 1-(x _o /R _o) ² | 0.402 |

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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