

Marino\WARE® Product Submittal Data

PRODUCT NAME: 400SR162-33

05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 400RS20

PROPERTIES:

A. Web (in)	4.00"	Yield Strength F_y (KSI)	33
B. Flange (in)	1.625"	Tensile Strength F_u (KSI)	45
C. Lip (in)	0.5"	Design Thickness (in)	0.0346
Mils	33	Minimum Thickness (in)	0.0329
Available Finish	CP60, CP90	Gauge	20 STR

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	0.84
Cross Sectional Area: A (in ²)	0.236
Moment of Inertia: I_x (in ⁴)	0.692
Section Modulus: S_x (in ³)	0.346
Radius of Gyration: R_x (in)	1.71
Gross Moment of Inertia: I_y (in ⁴)	0.0851
Gross Radius of Gyration: R_y (in)	0.600

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: I_{xed} (in ⁴)	0.692
Section Modulus: S_{xe} (in ³)	0.332
Allowable Bending Moment: M_a (in-k)	6.55
Allowable Shear Force: V_a (K)	0.216

TORSIONAL SECTION PROPERTIES

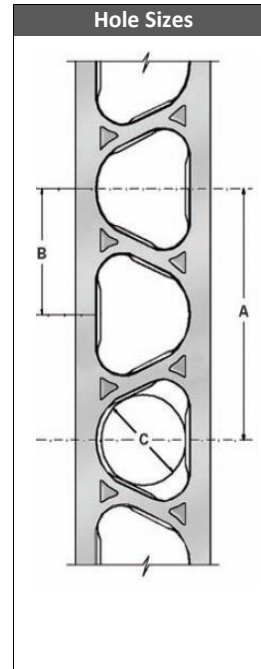
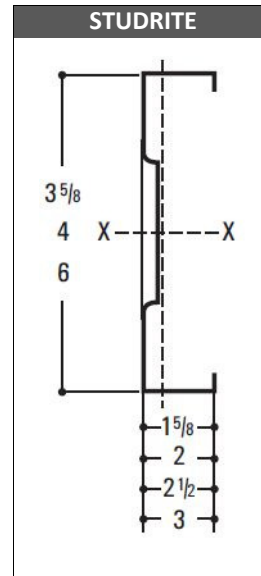
St. Venant Torsional Constant: J_{x1000} (in ⁴)	0.0942
Torsional Warping Constant: C_w (in ⁶)	0.3543
Distance From Shear Center To Centroid Principle x-axis x_o (in.)	-1.39
Distance From Shear Center to Mid-Plane of Web m (in.)	0.784
Radius of Gyration on the Centroid Principal axis: r_o (in.)	2.29
$1 - (x_o/r_o)^2 = \beta$	0.629
Critical Unbraced Length, lateral torsional buckling excluded L_u (in.)	40.1

CODES & STANDARDS

- Meets ASTM A 1003, A 653, C955 & AISI S240
- Coating meets ASTM C 955 / AISI S240
- Meets IBC 2021, 2018
- IAPMO ES ER-0781

GREEN INFO

- LEED v4 credits available
- Contact Technical Services for more information



Section	A (in)	B (in)	C
3-5/8"	7.0	3.5	1-3/4
4"	7.0	3.5	1-3/4
6"	8.1	4.0	2-7/8



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 7/1/2021 ©Copyright 2021 by Ware Industries, Inc. All rights reserved