

Marino\WARE® Product Submittal Data

PRODUCT NAME: 400S200-33

MARINO\WARE PART # 400SJ20

05.40.00 Cold-Formed Metal Framing

PROPERTIES:

A. Web (in)	4"	Yield Strength Fy (KSI)	33
B. Flange (in)	2"	Tensile Strength Fu (KSI)	45
C. Lip (in)	5/8"	Design Thickness (in)	0.0346
Mils	33	Minimum Thickness (in)	0.0329
Available Finish	G60	Gauge	20 STR

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Cross Sectional Area: A (in ²)	0.310
Weight of Member: (lb/ft)	1.05
Moment of Inertia: Ix (in ⁴)	0.812
Section Modulus: Sx (in ³)	0.406
Radius of Gyration: Rx (in)	1.619
Gross Moment of Inertia: Iy (in ⁴)	0.183
Gross Radius of Gyration: Ry (in)	0.769

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	0.81
Section Modulus: Sxe (in ³)	0.33
Allowable Local Bending Moment: Mal (in-k)	6.49
Allowable Distortional Bending Moment: Mad (in-k)	6.65
Allowable strong axis shear away from punch: Vag (lb)	976
Allowable strong axis shear at punch: Vanet (lb)	595

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	0.124
Torsional Warping Constant: Cw (in ⁶)	0.697
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.688
Shear Center to Mid-Plane of the Web: m (in)	1.007
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.462
Torsional Flexural Constant: β 1-(xo/Ro) ²	0.530

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.

