PRODUCT SUBMITTAL SHEET

For more information or questions, please contact:
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400S250-33[2] (Standard Punch)

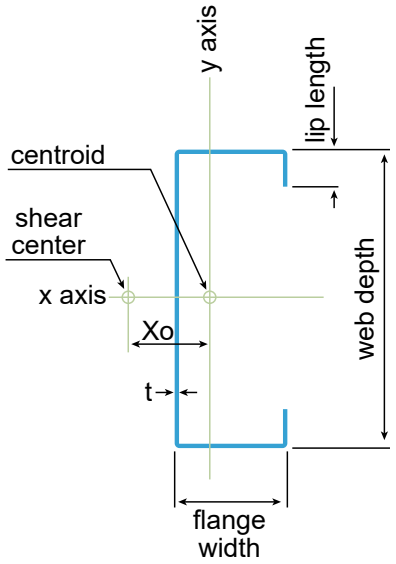
Product Description: 4" Stud STR 20GA (2-1/2" Flange, 33 mil)

Coating: G60 (standard), G90 (Available)

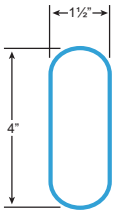
Specification Section: 05.40.00 (Cold-Formed Metal Framing)

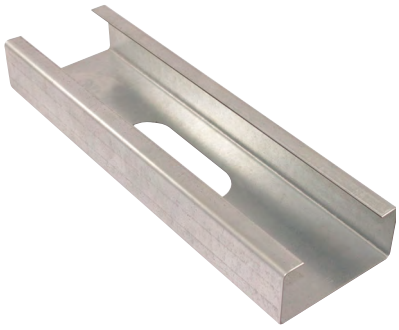
GEOMETRIC PROPERTIES			
Web Depth	4 in.	Yield Strength, Fy	33 ksi
Flange Width	2.5 in.	Design Thickness	0.0346 in.
Lip Length	0.625 in.	Min. Steel Thickness	0.0329 in.

*2 When web height-to-thickness ratio exceeds 260, or flange width-to-thickness ratio exceeds 60, effective properties are not calcuated. (Limitations in AISI Section B4.1)



GROSS PROPERTIES		
Area (in^2)	Total cross-sectional steel area	0.344
Weight (lb/ft)	Linear weight per foot	1.17
Ix (in^4)	Moment of inertia about the x-axis	0.948
Sx (in^3)	Section modulus about the x-axis	0.474
Rx (in)	Radius of gyration about the x-axis	1.660
Iy (in^4)	Moment of inertia about the y-axis	0.310
Ry (in)	Radius of gyration about the y-axis	0.949
EFFECTIVE PROPERTIES		
Ix (in^3)	Effective moment of inertia (x-axis)	-
Sx (in^3)	Effective section modulus (x-axis)	-
Ma (in-k)	Allowable bending moment-effective section modulus	-
Mad (in-k)	Allowable bending moment-distortional bucking	-
Va_g (lb)	Allowable shear force in web	-
Va_{net} (lb)	Allowable strong axis sheer at punchout	-
TORSIONAL PROPERTIES		
J x 1000 (in^4)	St. Venant torsional constant	0.137
Cw (in^6)	Warping constant	1.165
Xo (in)	Distance from shear center to centroid	-2.151
m (in)	Distance from shear center to mid-plane of web	1.259
Ro (in)	Polar radius of gyration	2.878
Beta	Torsional Flexural Constant	0.441





First punchout is centered 12" from beginning of member; subsequent punchouts are 24" on center (o.c.). Center of last punchout is no less than 12" from end of member.

Codes & Standards:

- **Structural Members**
  - ASTM C955
  - AISI S240
  - Installed per ASTM C1007
- **Material Standards**
  - ASTM A1003/A1003M
  - ASTM A653/A653M
- **Design Standards**
  - AISI S100-16 (2020) w/S2-20
- **Building Codes**
  - International Building Code (IBC) 2006–2024

- **Sustainability & Compliance:**
  - SFIA Quality Certified Manufacturing
  - Industry-Wide EPD Participant
  - HPD Documentation Available Upon Request
  - LEED Documentation Available Upon Request
  - Buy America / Build America (BABA) Documentation Available Upon Request
  - Manufactured in USA

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