PRODUCT SUBMITTAL SHEET

For more information or questions, please contact:
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400S250-43 (Standard Punch)

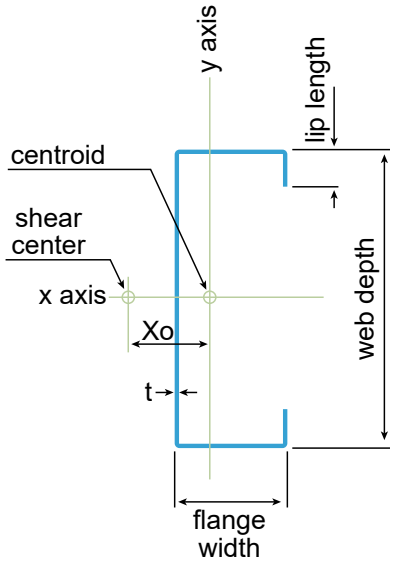
Product Description: 4” Stud 18GA (2-1/2” Flange, 43 mil)

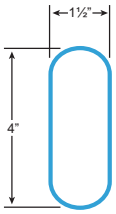
Coating: G60 (standard), G90 (Available)

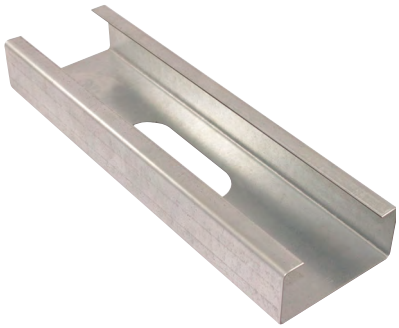
Specification Section: 05.40.00 (Cold-Formed Metal Framing)

GEOMETRIC PROPERTIES			
Web Depth	4 in.	Yield Strength, Fy	33 ksi
Flange Width	2.5 in.	Design Thickness	0.0451 in.
Lip Length	0.625 in.	Min. Steel Thickness	0.0428 in.

GROSS PROPERTIES		
Area (in²)	Total cross-sectional steel area	0.447
Weight (lb/ft)	Linear weight per foot	1.52
Ix (in⁴)	Moment of inertia about the x-axis	1.224
Sx (in³)	Section modulus about the x-axis	0.612
Rx (in)	Radius of gyration about the x-axis	1.655
Iy (in⁴)	Moment of inertia about the y-axis	0.399
Ry (in)	Radius of gyration about the y-axis	0.945
EFFECTIVE PROPERTIES		
Ix (in³)	Effective moment of inertia (x-axis)	1.224
Sx (in³)	Effective section modulus (x-axis)	0.516
Ma (in-k)	Allowable bending moment-effective section modulus	10.19
Mad (in-k)	Allowable bending moment-distortional bucking	10.09
Va_g (lb)	Allowable shear force in web	1740
Va_{net} (lb)	Allowable strong axis sheer at punchout	810
TORSIONAL PROPERTIES		
J x 1000 (in⁴)	St. Venant torsional constant	0.303
Cw (in⁶)	Warping constant	1.486
Xo (in)	Distance from shear center to centroid	-2.139
m (in)	Distance from shear center to mid-plane of web	1.252
Ro (in)	Polar radius of gyration	2.865
Beta	Torsional Flexural Constant	0.443







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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