

## Structural Stud 1000S250-54G90

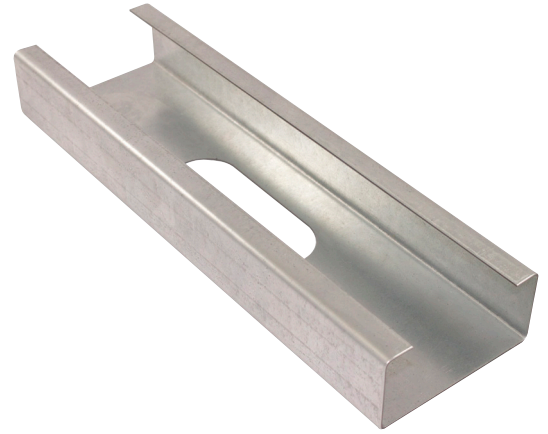
### Product Description

16 GA GALV 10.00" WEB x 2.50"  
FLANGE C-STUD .054 MIN GAUGE  
G90  
G90

### Coating

### Physical Properties

Design Thickness (in)	0.0566
Minimum Thickness (in)	0.0538
Web Width (in)	10.0000
Flange Width (in)	2.5000
Stiffening Lip (in)	0.6250
Yield Strength (ksi)	50.0000



### Gross Section Properties

Cross Sectional Area (A)	0.896
Weight of Member (lb/ft)	3.05
Section Modulus (Sx)	2.536
Moment of Inertia (Ix)	12.681
Radius of Gyration (Rx)	3.762
Gross Moment of Inertia (Iy)	0.653
Gross Radium of Gyration (Ry)	0.854

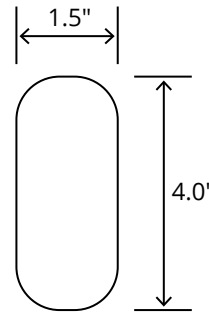
### Effective Section Properties

Moment of Inertia for deflection (Ixe)	12.661
Section Modulus (Sxe)	1.879
Allowable Bending moment (Ma)	56.27
Allowable shear force in web (U)(Vag)	1661
Allowable shear at punch (Vanet)	1661

### Torsional Properties

St. Venant torsion constant (J x 1000)	0.957
Warping constant (Cw)	12.922
Distance from shear center to neutral axis (Xo)	-1.505
Radii of gyration (Ro)	4.141
Torsional flexural constant (Beta)	0.868

### Punch Out



### ASTM & Code Standards

- AISI S100-12 & ICC ES ESR-4062
- Framing meets ASTM A1003, A653 & C955

### Notes

1. Calculated properties are based on AISI S100-16, North American Specification for Design of Cold-Formed Steel Structural Members.
2. The centerline bend radius is based on inside corner radii shown in thickness chart.
3. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A3.3.2.
4. Tabulated gross properties are based on full-unreduced cross section of the studs, away from punch outs.
5. For deflection calculations, use the effective moment of inertia.
6. Allowable moment includes cold-work of forming.

## Mill Steel Framing LEED Green Credits

- MR Credit 2** • ConstructionWaste Management – Mill Steel Framing steel framing is 100% recyclable
- MR Credit 4** • Recycled Content – Mill Steel Framing products contain no less than 25.5% post-consumer and 6.8% pre-consumer recycled content
- MR Credit 5** • Regional Materials – Mill Steel Framing has manufacturing facilities in Indiana, Alabama & Texas
- V4 MR Credits** • Building Product Disclosure and Optimization EPD (1 point)  
• Materials Ingredients (1 point) – Construction and Demolition Waste Management (1 point)

