

## Structural Stud 1000S200-97G90

**Product Description** 12 GA GALV 10.00" WEB X 2.00" FLANGE C-STUD .097 MIN GAUGE G-90

**Coating** G90

**Physical Properties**

Design Thickness (in) 0.1017  
 Minimum Thickness (in) 0.0966  
 Web Width (in) 10.0000  
 Flange Width (in) 2.0000  
 Stiffening Lip (in) 0.6250  
 Yield Strength (ksi) 50.0000



### Gross Section Properties

Cross Sectional Area (A)	1.474
Weight of Member (lb/ft)	5.01
Section Modulus (Sx)	3.869
Moment of Inertia (Ix)	19.343
Radius of Gyration (Rx)	3.622
Gross Moment of Inertia (Iy)	0.610
Gross Radium of Gyration (Ry)	0.643

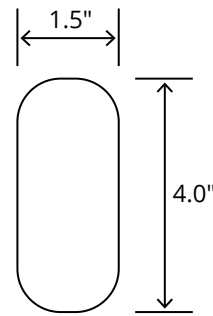
### Effective Section Properties

Moment of Inertia for deflection (Ixe)	19.337
Section Modulus (Sxe)	3.741
Allowable Bending moment (Ma)	112.01
Allowable shear force in web (U)(Vag)	9864
Allowable shear at punch (Vanet)	7177

### Torsional Properties

St. Venant torsion constant (J x 1000)	5.082
Warping constant (Cw)	12.679
Distance from shear center to neutral axis (Xo)	-1.088
Radii of gyration (Ro)	3.836
Torsional flexural constant (Beta)	0.920

### 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)

