

## Structural Stud 1000S200-43G90

**Product Description** 18 GA GALV 10.00" WEB x 2.00" FLANGE C-STUD .043 MIN GAUGE G90

**Coating** G90

**Physical Properties**

Design Thickness (in) 0.0451  
 Minimum Thickness (in) 0.0428  
 Web Width (in) 10.0000  
 Flange Width (in) 2.0000  
 Stiffening Lip (in) 0.6250  
 Yield Strength (ksi) 33.0000



Gross Section Properties	
Cross Sectional Area (A)	0.672
Weight of Member (lb/ft)	2.29
Section Modulus (Sx)	1.818
Moment of Inertia (Ix)	9.088
Radius of Gyration (Rx)	3.676
Gross Moment of Inertia (Iy)	0.309
Gross Radium of Gyration (Ry)	0.677

Effective Section Properties	
Moment of Inertia for deflection (Ixe)	8.603
Section Modulus (Sxe)	1.470
Allowable Bending moment (Ma)	29.05
Allowable shear force in web (U)(Vag)	836
Allowable shear at punch (Vanet)	836

Torsional Properties	
St. Venant torsion constant (J x 1000)	0.456
Warping constant (Cw)	6.236
Distance from shear center to neutral axis (Xo)	-1.147
Radii of gyration (Ro)	3.910
Torsional flexural constant (Beta)	0.914

### 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)

