

Structural Stud 400S137-33G90

Product Description

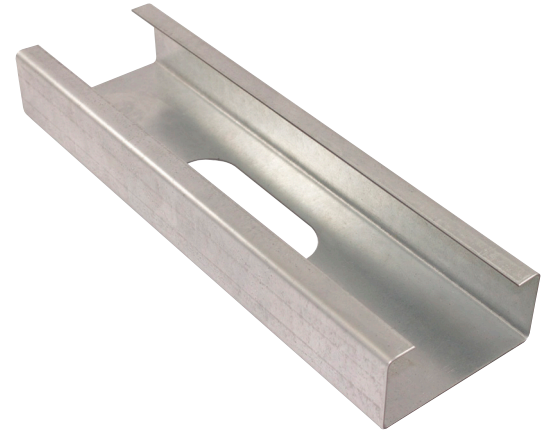
20 GA GALV 4.00" WEB x 1.37"
FLANGE C-STUD .033 MIN GAUGE
G90

Coating

G90

Physical Properties

Design Thickness (in)	0.0346
Minimum Thickness (in)	0.0329
Web Width (in)	4.0000
Flange Width (in)	1.3750
Stiffening Lip (in)	0.3750
Yield Strength (ksi)	33.0000



Gross Section Properties

Cross Sectional Area (A)	0.249
Weight of Member (lb/ft)	0.85
Section Modulus (Sx)	0.302
Moment of Inertia (Ix)	0.603
Radius of Gyration (Rx)	1.556
Gross Moment of Inertia (Iy)	0.061
Gross Radius of Gyration (Ry)	0.496

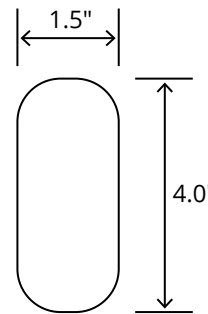
Effective Section Properties

Moment of Inertia for deflection (Ixe)	0.603
Section Modulus (Sxe)	0.259
Allowable Bending moment (Ma)	5.12
Allowable shear force in web (U)(Vag)	976
Allowable shear at punch (Vanet)	595

Torsional Properties

St. Venant torsion constant (J x 1000)	0.099
Warping constant (Cw)	0.204
Distance from shear center to neutral axis (Xo)	-0.965
Radii of gyration (Ro)	1.897
Torsional flexural constant (Beta)	0.741

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)

