

## Structural Stud 400S162-33

### Product Description

20 GA GALV 4.00" WEB x 1.62"  
FLANGE C-STUD .033 MIN  
GAUGE  
G60

### Coating

### Physical Properties

Design Thickness (in)	0.0346
Minimum Thickness (in)	0.0329
Web Width (in)	4.0000
Flange Width (in)	1.6250
Stiffening Lip (in)	0.5000
Yield Strength (ksi)	33.0000



### Gross Section Properties

Cross Sectional Area (A)	0.275
Weight of Member (lb/ft)	0.94
Section Modulus (Sx)	0.346
Moment of Inertia (Ix)	0.692
Radius of Gyration (Rx)	1.586
Gross Moment of Inertia (Iy)	0.103
Gross Radius of Gyration (Ry)	0.611

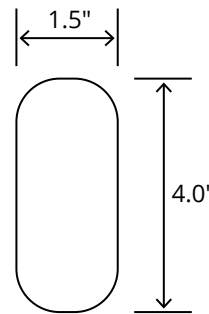
### Effective Section Properties

Moment of Inertia for deflection (Ixe)	0.692
Section Modulus (Sxe)	0.299
Allowable Bending moment (Ma)	5.91
Allowable shear force in web (U)(Vag)	976
Allowable shear at punch (Vanet)	595

### Torsional Properties

St. Venant torsion constant (J x 1000)	0.110
Warping constant (Cw)	0.363
Distance from shear center to neutral axis (Xo)	-1.263
Radii of gyration (Ro)	2.118
Torsional flexural constant (Beta)	0.644

### 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)

