

Structural Stud 400S162-54G90

Product Description 16 GA GALV 4.00" WEB x 1.62" FLANGE C-STUD .054 MIN GAUGE G90

Coating G90

Physical Properties

Design Thickness (in)	0.0566
Minimum Thickness (in)	0.0538
Web Width (in)	4.0000
Flange Width (in)	1.6250
Stiffening Lip (in)	0.5000
Yield Strength (ksi)	50.0000

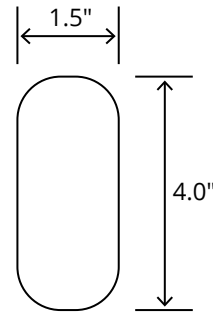


Gross Section Properties	
Cross Sectional Area (A)	0.443
Weight of Member (lb/ft)	1.51
Section Modulus (Sx)	0.549
Moment of Inertia (Ix)	1.098
Radius of Gyration (Rx)	1.574
Gross Moment of Inertia (Iy)	0.159
Gross Radium of Gyration (Ry)	0.600

Effective Section Properties	
Moment of Inertia for deflection (Ixe)	1.098
Section Modulus (Sxe)	0.498
Allowable Bending moment (Ma)	14.90
Allowable shear force in web (U)(Vag)	3372
Allowable shear at punch (Vanet)	1223

Torsional Properties	
St. Venant torsion constant (J x 1000)	0.473
Warping constant (Cw)	0.560
Distance from shear center to neutral axis (Xo)	-1.238
Radii of gyration (Ro)	2.090
Torsional flexural constant (Beta)	0.649

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.

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| 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 |
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| | • Materials Ingredients (1 point) – Construction and Demolition Waste Management (1 point) |

