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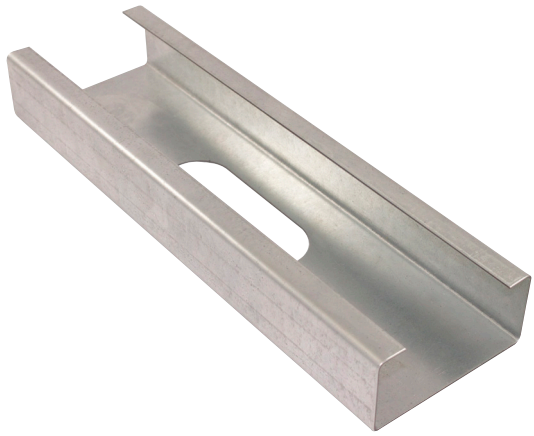
Structural Stud 400S250-54G90

Product Description 16 GA GALV 4" WEB X 2.50" FLANGE C-STUD .054 MIN GAUGE G90

Coating G90



Physical Properties

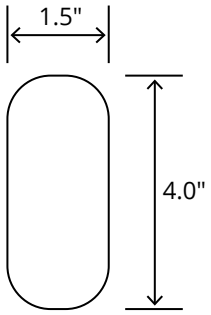
Design Thickness (in)	0.0566
Minimum Thickness (in)	0.0538
Web Width (in)	4.0000
Flange Width (in)	2.5000
Stiffening Lip (in)	0.6250
Yield Strength (ksi)	50.0000

Gross Section Properties	
Cross Sectional Area (A)	0.556
Weight of Member (lb/ft)	1.89
Section Modulus (Sx)	0.756
Moment of Inertia (Ix)	1.512
Radius of Gyration (Rx)	1.649
Gross Moment of Inertia (Iy)	0.490
Gross Radium of Gyration (Ry)	0.938

Effective Section Properties	
Moment of Inertia for deflection (Ixe)	1.496
Section Modulus (Sxe)	0.576
Allowable Bending moment (Ma)	17.24
Allowable shear force in web (U)(Vag)	3372
Allowable shear at punch (Vanet)	1223

Torsional Properties	
St. Venant torsion constant (J x 1000)	0.594
Warping constant (Cw)	1.821
Distance from shear center to neutral axis (Xo)	-2.124
Radii of gyration (Ro)	2.848
Torsional flexural constant (Beta)	0.444

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)