

ProSTUD® 400PDS125-33G90

Product Description 4" PROSTUD®33MIL (33MIL)
G90
Coating G90

Physical Properties

Design Thickness (in) 0.0346
Minimum Thickness (in) 0.0329
Web Width (in) 4
Flange Width (in) 1.25
Stiffening Lip (in) 0.25
Yield Strength (ksi) 33



Gross Section Properties

Cross Sectional Area (A)	0.234
Moment of Inertia (Ix)	0.553
Radius of Gyration (Rx)	1.538
Gross Moment of Inertia (Iy)	0.043
Gross Radium of Gyration (Ry)	0.426

Effective Section Properties

Effective Area (Ae)	0.128
Moment of Inertia for deflection (Ixe)	0.553
Section Modulus (Sxe)	0.222
Allowable Bending moment (Ma)	4394
Allowable shear force in web (U)(Vag)	957
Allowable shear force in web (P) (Vanet)	602

Torsional Properties

St. Venant torsion constant (J x 1000)	0.09338
Warping constant (Cw)	0.132
Distance from shear center to neutral axis (Xo)	-0.783
Radii of gyration (Ro)	1.777
Torsional flexural constant (Beta)	0.806
Unbraced Length (Lu)	29.5

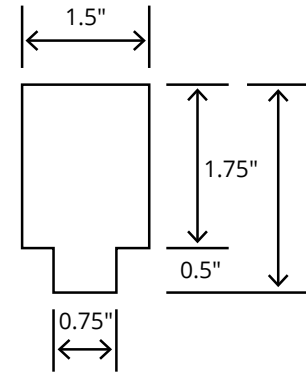
ASTM & Code Standards

• AISI S100-07 & S220-11 • Meets or exceeds ASTM C645 & C754 • ASTM E119, E72, & E90 • ATI CCRR-0207 • LA RR 26019

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)

Punch Out



Notes

1. Calculated properties are based on AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-15, North American Standard for Cold-Formed Steel Framing - NonStructural Members.
2. Effective Properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
3. Tabulated gross properties including torsional properties are based on full-unreduced cross section of the studs, away from punchouts.
4. For deflection calculations, use the effective moment of inertia.
5. Allowable moment includes cold-work of forming.
6. Allowable moment is taken as the lowest value based on load or distortional buckling. Distortional buckling strength is based on a k-phi = 0.

