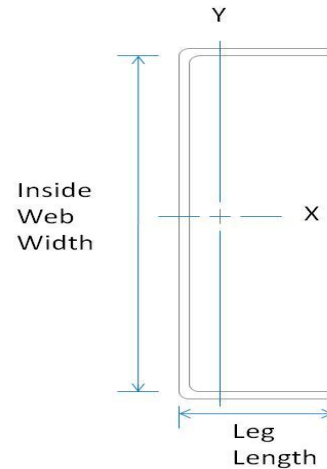


Member Designator **400PT150-18**
Coating CP40, G40

Physical Properties

Design Thickness 0.019 in
Mil 18mil
Gauge 20 Gauge
Web Width 4.00 in
Flange Width 1.50 in
Yield Strength 50 ksi



Gross Properties

Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	R _x (in)	I _y (in ⁴)	R _y (in)
0.133	0.45	0.336	1.589	0.029	0.463

Effective Properties

A _e (in ²)	I _x (in ⁴)	S _x (in ³)	M _a (in-lbs)	V _{a_g} (lb)
0.029	0.218	0.055	1658	154

Torsional Properties

J _{x1000} (in ²)	C _w (in ⁴)	X _o (in ³)	R _o (in-lbs)	β
0.016	0.084	-0.83	1.852	0.799

General Notes

- 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.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Allowable moment includes cold-work of forming.
- Tabulated gross properties including torsional properties are based on full-unreduced cross section of the studs, away from punchouts.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Drywall framing members have a protective coating conforming to ASTM spec A 653/A 653M, G-40 min, or equivalent corrosion resistance.
- Reference ASTM specification A 1003/A 1003 M table 1 for the universe of allowable coatings for light gauge steel framing.
- Drywall framing members are marked with product information per the requirements of ASTM C 645 section 14.
- All delivered material must be kept dry. If it is necessary to store material outside, it must be stacked off the ground, properly supported on a level platform, and fully protected from the weather. Reference ASTM C 754 section 8 and ASTM C 1007 section 4.
- Drywall framing [nonstructural 25 gauge, 22 gauge and 20 gauge] is not permitted in load bearing (i.e. axial load greater than 200 lbs.) or exterior applications (i.e. transverse load greater than 10 PSF). Reference ASTM C 645 section 3.2.2.

LEED Green Building Credits

LEED v4 MR Credit - Building Product Disclosure Optimization: EPD (1 Point), Raw Material Sourcing (1 Point), Material Ingredients (1 Point), Construction and Demolition Waste (up to 2 points), Innovation Credit (up to 2 points)

LEED 2009 Credit - MBA steel products are 100% recyclable with a minimum recycle content of 32.7% (25.5% Post-Consumer and 6.8% Pre-Consumer/Post-Industrial). Higher rates can be achieved for MR5 by pre-planning with MBA sales@mbastuds.com or (888) 248-8076.