

400T150-97 (50ksi, CP60)

400 (4") structural track with T150 (1-1/2") leg - 97mils (12ga)

Coating: CP60 per AISI S240

Color Code: Red

Geometric Properties

Web depth: 4.356 in **Thickness:** 97mils (12ga) **Yield strength, Fy:** 50 ksi
Leg width: 1.50 in **Design Thickness:** 0.1017 in ***Fy with Cold-Work, Fya:** 50.0 ksi
Min. steel thickness: 0.0966 in **Ultimate, Fu:** 65.0 ksi

Gross Section Properties of Full Section, Strong Axis

| | |
|----------------------------------|-----------------------|
| Cross sectional area (A) | 0.710 in ² |
| Member weight per foot of length | 2.41 lb/ft |
| Moment of inertia (Ix) | 1.904 in ⁴ |
| Section Modulus (Sx) | 0.874 in ³ |
| Radius of gyration (Rx) | 1.638 in |
| Gross moment of inertia (Iy) | 0.142 in ⁴ |
| Gross radius of gyration (Ry) | 0.447 in |

Effective Section Properties, Strong Axis

| | |
|---------------------------------------|-----------------------|
| Effective Area (Ae) | 0.642 in ² |
| Moment of inertia for deflection (Ix) | 1.904 in ⁴ |
| Section modulus (Sx) | 0.832 in ³ |
| Allowable bending moment (Ma) | 24.92 in-k |
| Allowable shear force in web | 7337 lb |

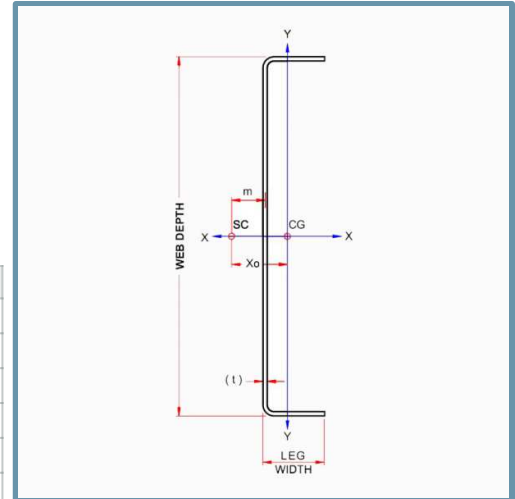
Torsional Properties

| | |
|--|-----------------------|
| St. Venant torsional constant (J x 1000) | 2.447 in ⁴ |
| Warping constant (Cw) | 0.463 in ⁶ |
| Distance from shear center to neutral axis (Xo) | -0.788 in |
| Distance between shear center and web centerline (m) | 0.487 in |
| Radii of gyration (Ro) | 1.872 in |
| Torsional flexural constant (Beta) | 0.823 |

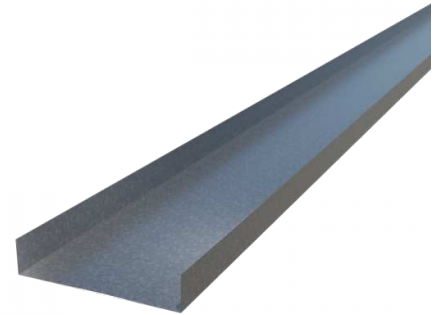
- Effective properties incorporate the strength increase from the cold work of forming.

Code Approvals & Performance Standards

- [AISI S100-16 \(2020\) w/S2-20](#) North American Specification for the Design of Cold-Formed Steel Structural Members
- [AISI S240-20](#) North American Standard for Cold-Formed Steel Structural Framing
 - (Compliant to ASTM C955, but IBC replaced with AISI S200 in IBC 2015, AISI S240 in IBC 2018)
 - Section A3 Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
 - Section A4 Corrosion Protection (Referencing ASTM A653/A653M)
 - Section A5 Products - Thickness, shapes, tolerances, identification
 - Section C Installation - (Referencing ASTM C1007)
- [AISI S202-20](#) Code of Standard Practice for Cold-Formed Steel Structural Framing
 - Section F3 Delivery, Handling and Storage of Materials
- [IBC 2021](#) International Building Code
- [ICC-ES ESR-1166P](#) Structural Studs and Track
 - [ESR-1166P LABC and LARC](#) Supplement
 - [ESR-1166P Catalog](#) ClarkDietrich Structural Technical Design Guide (6/22/20)
- [Intertek CRR-0206](#) Structural Studs and Track
- [SFIA Stud](#) Code Compliance Certification Program
- [SDS For ASTM A1003 Steel Framing Products](#) For Interior Framing, Exterior Framing and Clips/Accessories



- Load-bearing walls
- Curtain walls
- Tall interior walls
- Floor & ceiling joists
- Trusses



Sustainability Credits For more details and LEED letters contact Technical Services at 888-437-3244 or visit clarkdietrich.com/LEED.

- **LEED v4.1 MR Credit:** Environmental Product Declarations: EPD (1 point) - Sourcing of Raw Materials (up to 2 points) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points)
- **LEED v4 MR Credit:** Building Product Disclosure and Optimization: EPD (1 point) - Sourcing of Raw Materials (1 point) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points) - Innovation Credit (up to 2 points).