

05.40.00 (Cold-Formed Metal Framing)





Technical Services: 888-437-3244, Engineering Services: 877-832-3206, Sales 800-543-7140

## 250T150-43 (33ksi, CP60)

250 (2-1/2") structural track with T150 (1-1/2") leg - 43mils (18ga)

Coating: CP60 per AISI S240 Color Code: Yellow

## **Geometric Properties**

Thickness: 43mils (18ga) Web depth: 2.661 in Yield strength, Fy: 33 ksi Leg width: 1.50 in Design Thickness: 0.0451 in \*Fy with Cold-Work, Fya: 33.0 ksi

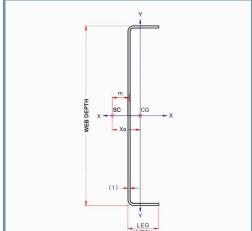
Min. steel thickness: 0.0428 in Ultimate, Fu: 45.0 ksi

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|---|------------------------|
| Gross Section Properties of Full Section, Strong Axis |                        |
| Cross sectional area (A)                              | 0.248 in <sup>2</sup>  |
| Member weight per foot of length                      | 0.84 lb/ft             |
| Moment of inertia (lx)                                | 0.289 in <sup>4</sup>  |
| Section Modulus (Sx)                                  | 0.217in <sup>3</sup>   |
| Radius of gyration (Rx)                               | 1.080 in               |
| Gross moment of inerita (ly)                          | 0.058 in <sup>4</sup>  |
| Gross radius of gyration (Ry)                         | 0.483 in               |
| Effective Section Properties, Strong Axis             |                        |
| Effective Area (Ae)                                   | 0.168 in <sup>2</sup>  |
| Moment of inertia for deflection (lx)                 | 0.252 in <sup>4</sup>  |
| Section modulus (Sx)                                  | 0.154 in <sup>3</sup>  |
| Allowable bending moment (Ma)                         | 3.03 in-k              |
| Allowable shear force in web                          | 1356 lb                |
| Torsional Propertie                                   | es                     |
| St. Venant torsional constant (J x 1000)              | 0.168 in <sup>4</sup>  |
| Warping constant (Cw)                                 | 0.070 in <sup>6</sup>  |
| Distance from shear center to neutral axis (Xo)       | -0.968 in              |
| Distance between shear center and web centerline (m)  | 0.570 in               |
| Radii of gyration (Ro)                                | 1.529 in               |
| Torsional flexural constant (Beta)                    | 0.599                  |

• 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
  - o (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)
  - o Section A5 Products Thickness, shapes, tolerances, identification
  - o Section C Installation (Referencing ASTM C1007)
- AISI S202-20 Code of Standard Practice for Cold-Formed Steel Structural Framing
  - o 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
  - o ESR-1166P Catalog ClarkDietrich Structural Technical Design Guide (6/22/20)
- Intertek CCRR-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).