

05.40.00 (Cold-Formed Metal Framing)





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

## 1400T300-68 (50ksi, CP60)

1400 (14") structural track with T300 (3") leg - 68mils (14ga)

Coating: CP60 per AISI S240 Color Code: Orange

## **Geometric Properties**

Web depth: 14.250 in Thickness: 68mils (14ga) Leg width: 3.00 in Design Thickness: 0.0713 in Min. steel thickness: 0.0677 in Yield strength, Fy: 50 ksi \*Fy with Cold-Work, Fya: 50.0 ksi

Ultimate, Fu: 65.0 ksi

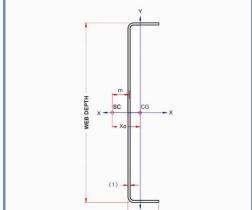
**Gross Section Properties of Full Section, Strong Axis** 1.425 in<sup>2</sup> Cross sectional area (A) 4.85 lb/ft Member weight per foot of length 37.750 in<sup>4</sup> Moment of inertia (Ix) 5.298in<sup>3</sup> Section Modulus (Sx) Radius of avration (Rx) 5.147 in

| riadius of gyration (rix)                            | 3.147 111              |  |
|--|------------------------|--|
| Gross moment of inerita (ly)                         | 0.962 in <sup>4</sup>  |  |
| Gross radius of gyration (Ry)                        | 0.822 in               |  |
| Effective Section Properties, S                      | Strong Axis            |  |
| Effective Area (Ae)                                  | 0.395 in <sup>2</sup>  |  |
| Moment of inertia for deflection (lx)                | 28.780 in <sup>4</sup> |  |
| Section modulus (Sx)                                 | 2.523 in <sup>3</sup>  |  |
| Allowable bending moment (Ma)                        | 75.54 in-k             |  |
| Allowable shear force in web                         | 2322 lb                |  |
| Torsional Propertie                                  | s                      |  |
| St. Venant torsional constant (J x 1000)             | 2.415 in <sup>4</sup>  |  |
| Warping constant (Cw)                                | 36.257 in <sup>6</sup> |  |
| Distance from shear center to neutral axis (Xo)      | -1.265 in              |  |
| Distance between shear center and web centerline (m) | 0.825 in               |  |
| Radii of gyration (Ro)                               | 5.364 in               |  |
| Torsional flexural constant (Beta)                   | 0.944                  |  |
|  |                        |  |

• 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)
  - 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
  - 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).