

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

#### 05.40.00 (Cold-Formed Metal Framing)

# 1200T125-54 (50ksi, CP60)

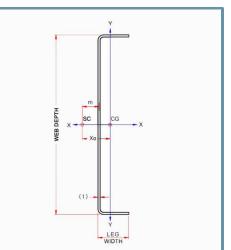
#### 1200 (12") structural track with T125 (1-1/4") leg - 54mils (16ga)

Coating: CP60 per AISI S240

Color Code: Green

### **Geometric Properties**

| Web depth: 12.198 in<br>Leg width: 1.25 in            | Thickness: 54mils (16ga)<br>Design Thickness: 0.0566 in<br>Min. steel thickness: 0.0538 in | Yield strength, Fy: 50 ksi<br>*Fy with Cold-Work, Fya: 50.0 ksi<br>Ultimate, Fu: 65.0 ksi |
|---|--|---|
| Gross Section Properties of Full Section, Strong Axis |  |   |
| Cross sectional area (A)                              |  | 0.820 in <sup>2</sup>   |
| Member weight per foot of length                      |  | 2.79 lb/ft  |
| Moment of inertia (Ix)                                |  | 13.341 in <sup>4</sup>  |
| Section Modulus (Sx)                                  |  | 2.187in <sup>3</sup>  |
| Radius of gyration (Rx)                               |  | 4.034 in  |
| Gross moment of inerita (ly)                          |  | 0.060 in <sup>4</sup>   |
| Gross radius of gyration (Ry)                         |  | 0.271 in  |
| Effective Section Properties, Strong Axis             |  |   |
| Effective Area (Ae)                                   |  | 0.241 in <sup>2</sup>   |
| Moment of inertia for deflection (Ix)                 |  | 11.463 in <sup>4</sup>  |
| Section modulus (Sx)                                  |  | 1.286 in <sup>3</sup>   |
| Allowable bending moment (Ma)                         |  | 38.51 in-k  |
| Allowable shear force in web                          |  | 1354 lb   |
| Torsional Properties                                  |  |   |
| St. Venant torsional constant (J x 1000)              |  | 0.876 in <sup>4</sup>   |
| Warping constant (Cw)                                 |  | 1.820 in <sup>6</sup>   |
| Distance from shear center to neutral axis (Xo)       |  | -0.333 in   |
| Distance between shear center and web centerline (m)  |  | 0.230 in  |
| Radii of gyration (Ro)                                |  | 4.056 in  |
| Torsional flexural constant (Beta)                    |  | 0.993   |



· Load-bearing walls

Curtain walls

Tall interior walls

Floor & ceiling joists

Trusses



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

Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

## **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 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

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).