

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

05.40.00 (Cold-Formed Metal Framing)

1400T300-54 (50ksi, CP60)

Section modulus (Sx)

Warping constant (Cw)

Radii of gyration (Ro)

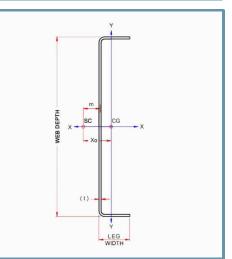
Allowable bending moment (Ma) Allowable shear force in web

Torsional flexural constant (Beta)

St. Venant torsional constant (J x 1000)

Distance from shear center to neutral axis (Xo) Distance between shear center and web centerline (m)

1400 (14") structural	track with T300 (3") leg - 54mils	(16ga)
Coating: CP60 per AISI S240		Color Code: Green
Geometric Proper	ties	
Web depth: 14.198 in Leg width: 3.00 in	Thickness: 54mils (16ga) Design Thickness: 0.0566 in Min. steel thickness: 0.0538 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		
Cross sectional area (A)		1.131 in ²
Member weight per foot of length		3.85 lb/ft
Moment of inertia (Ix)		29.891 in ⁴
Section Modulus (Sx)		4.211in ³
Radius of gyration (Rx)		5.140 in
Gross moment of inerita (ly)		0.769 in ⁴
Gross radius of gyration (Ry)		0.825 in
	Effective Section Properties,	Strong Axis
Effective Area (Ae)		0.253 in ²
Moment of inertia for deflection (lx)		20.332 in ⁴



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.

Torsional Properties

1.636 in³

48.97 in-k

1.208 in⁴

28.800 in⁶

-1.271 in

0.829 in

5.359 in

0.944

1160 lb

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).