

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

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

# 800T250-33 (33ksi, CP60)

#### 800 (8") structural track with T250 (2-1/2") leg - 33mils (20ga)

Coating: CP60 per AISI S240

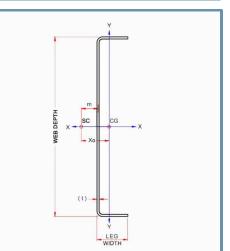
### **Geometric Properties**

Web depth: 8.146 in	Thickness: 33mils (20ga)
Leg width: 2.50 in	Design Thickness: 0.0346 in
	Min. steel thickness: 0.0329 in

Yield strength, Fy: 33 ksi \*Fy with Cold-Work, Fya: 33.0 ksi Ultimate, Fu: 45.0 ksi

Color Code: White

Gross Section Properties of Full Section, Strong Axis		
Cross sectional area (A)	0.450 in <sup>2</sup>	
Member weight per foot of length	1.53 lb/ft	
Moment of inertia (lx)	4.319 in <sup>4</sup>	
Section Modulus (Sx)	1.061in <sup>3</sup>	
Radius of gyration (Rx)	3.099 in	
Gross moment of inerita (ly)	0.252 in <sup>4</sup>	
Gross radius of gyration (Ry)	0.748 in	
Effective Section Properties, Strong Axis		
Effective Area (Ae)	0.117 in <sup>2</sup>	
Moment of inertia for deflection (lx)	3.383 in <sup>4</sup>	
Section modulus (Sx)	0.442 in <sup>3</sup>	
Allowable bending moment (Ma)	8.74 in-k	
Allowable shear force in web	465 lb	
Torsional Properties		
St. Venant torsional constant (J x 1000)	0.179 in <sup>4</sup>	
Warping constant (Cw)	2.986 in <sup>6</sup>	
Distance from shear center to neutral axis (Xo)	-1.278 in	
Distance between shear center and web centerline (m)	0.804 in	
Radii of gyration (Ro)	3.435 in	
Torsional flexural constant (Beta)	0.862	



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.
- This section does not meet the requirements of AISI North American Specifications. Increase the thickness or contact ClarkDietrich Tech Support for design solutions.

## **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
  o Section F3 Delivery, Handling and Storage of Materials
- 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).