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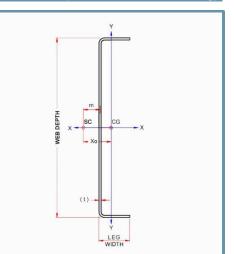
## 05.40.00 (Cold-Formed Metal Framing)

## 400T150-43 (33ksi, CP60)

## 400 (4") structural track with T150 (1-1/2") leg - 43mils (18ga)

Coating: CP60 per AISI S240		Color Code: Yellow
Geometric Proper	ties	
Web depth: 4.161 in Leg width: 1.50 in	Thickness: 43mils (18ga) Design Thickness: 0.0451 in Min. steel thickness: 0.0428 in	Yield strength, Fy: 33 ksi *Fy with Cold-Work, Fya: 33.0 ksi Ultimate. Fu: 45.0 ksi

Gross Section Properties of Full Sec	ction, Strong Axis
Cross sectional area (A)	0.315 in <sup>2</sup>
Member weight per foot of length	1.07 lb/ft
Moment of inertia (Ix)	0.811 in <sup>4</sup>
Section Modulus (Sx)	0.390in <sup>3</sup>
Radius of gyration (Rx)	1.604 in
Gross moment of inerita (ly)	0.066 in <sup>4</sup>
Gross radius of gyration (Ry)	0.458 in
Effective Section Properties, S	Strong Axis
Effective Area (Ae)	0.178 in <sup>2</sup>
Moment of inertia for deflection (lx)	0.719 in <sup>4</sup>
Section modulus (Sx)	0.293 in <sup>3</sup>
Allowable bending moment (Ma)	5.80 in-k
Allowable shear force in web	1739 lb
Torsional Properties	S
St. Venant torsional constant (J x 1000)	0.214 in <sup>4</sup>
Warping constant (Cw)	0.200 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-0.817 in
Distance between shear center and web centerline (m)	0.504 in
Radii of gyration (Ro)	1.857 in
Torsional flexural constant (Beta)	0.807



· Load-bearing walls

Curtain walls

Tall interior walls

Floor & ceiling joists

Trusses



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
- (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
- 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).