

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

05.40.00 (Cold-Formed Metal Framing)

400T125-68 (50ksi, CP60)

Effective Area (Ae)

Section modulus (Sx)

Warping constant (Cw)

Radii of gyration (Ro)

Moment of inertia for deflection (lx)

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)

400 (4") structural tra	ack with T125 (1-1/4'') leg - 68mi	ils (14ga)
Coating: CP60 per AISI S240		Color Code: Orange
Geometric Proper	ties	
Web depth: 4.250 in Leg width: 1.25 in	Thickness: 68mils (14ga) 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		
Cross sectional area (A)		0.462 in ²
Member weight per foot of length		1.57 lb/ft
Moment of inertia (Ix)		1.151 in ⁴
Section Modulus (Sx)		0.541in ³
Radius of gyration (Rx)		1.577 in
Gross moment of inerita (ly)		0.061 in ⁴
Gross radius of gyration (Ry)		0.364 in

· 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)

Effective Section Properties, Strong Axis

Torsional Properties

0.343 in²

1.134 in⁴

0.488 in³ 14.62 in-k

5205 lb

0.783 in⁴

0.194 in⁶

-0.614 in

0.386 in

1.731 in

0.874

- 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).