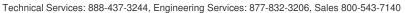


05.40.00 (Cold-Formed Metal Framing)





1600S200-68-P (50ksi, CP60, Punched)

16" structural stud with S200 (2") flange - 68mils (14ga)

Coating: CP60 per AISI S240 Color Code: Orange

Geometric Properties

Web depth: 16.000 in Thickness: 68mils (14ga) Yield strength, Fy: 50 ksi Flange width: 2.000 in Design Thickness: 0.0713 in *Fy with Cold-Work, Fya: 50.0 ksi Stiffening lip: 0.625 in Min. steel thickness: 0.0677 in Ultimate, Fu: 65.0 ksi

Gross Section Properties of Full Section, Strong Axis Cross sectional area (A) 1.477 in² 5.03 lb/ft Member weight per foot of length 45.310 in⁴ Moment of inertia (Ix) 5.664 in³ Section Modulus (Sx) Radius of gyration (Rx) 5.538 in Gross moment of inertia (ly) 0.506 in⁴ Gross radius of gyration (Ry) 0.585 in **Effective Section Properties, Strong Axis** 0.493 in^2 Effective Area (Ae) Moment of inertia for deflection (Ix) 40.526 in⁴ Section modulus (Sx) 4.045 in³ Allowable bending moment (Ma) 121.11 in-k Allowable moment based on distortion buckling (Mad) 93.80 in-k Allowable shear force in web (solid section) 2062 lb Allowable shear force in web (perforated section) 2062 lb Unbraced length (Lu) 37.1 in **Torsional Properties** 2.503 in⁴ St. Venant torsional constant (J x 1000) 27.155 in⁶ Warping constant (Cw) Distance from shear center to neutral axis (Xo) -0.862 in 0.584 in Distance between shear center and web centerline (m) Radii of gyration (Ro) 5.635 in

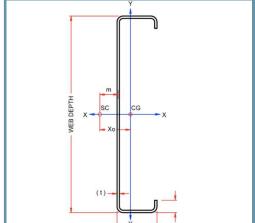
- Effective properties incorporate the strength increase from the cold work of forming.
- Gross properties are based on the cross section away from the punchouts.
- Effective properties are based on knockout/punched sections.
- Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

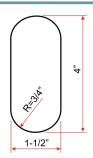
0.977

Code Approvals & Performance Standards

Torsional flexural constant (Beta)

- 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
 - o (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





Structural Punchout

East Coast / Central punch spacing:

Center of punchoutss are 12" from lead end, then 24" o.c.

West Coast punch spacing:

Center of punchouts are 24" from lead end, then 24" o.c.

Center of tail end punchout not less than 12" from end of stud.

If lateral bracing is required for head-of-wall deflection track and a punchout is not spaced 12" from the top of stud, use strapping and blocking in lieu of CRC or Spazzer Bar lateral bridging.

If custom punchout patterns are required. contact ClarkDietrich Sales or local plant for requests.

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).