

05.40.00 (Cold-Formed Metal Framing)



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

800S350-97-P (50ksi, CP60, Punched)

8" structural stud with S350 (3-1/2") flange - 97mils (12ga)

Coating: CP60 per AISI S240 Color Code: Red

Geometric Properties

Web depth: 8.000 in
Flange width: 3.500 in
Stiffening lip: 1.000 in

Thickness: 97mils (12ga)
Design Thickness: 0.1017 in
Min. steel thickness: 0.0966 in

Yield strength, Fy: 50 ksi
*Fy with Cold-Work, Fya: 50.0 ksi

Ultimate, Fu: 65.0 ksi

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Gross Section Properties of Full Sec	tion, Strong Axis
Cross sectional area (A)	1.652 in ²
Member weight per foot of length	5.62 lb/ft
Moment of inertia (Ix)	16.741 in ⁴
Section Modulus (Sx)	4.185 in ³
Radius of gyration (Rx)	3.183 in
Gross moment of inertia (ly)	2.784 in ⁴
Gross radius of gyration (Ry)	1.298 in
Effective Section Properties, Strong Axis	
Effective Area (Ae)	1.018 in ²
Moment of inertia for deflection (lx)	16.739 in ⁴
Section modulus (Sx)	3.786 in ³
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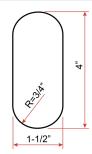
Moment of inertia for deflection (lx)	16.739 in ⁴
Section modulus (Sx)	3.786 in ³
Allowable bending moment (Ma)	113.35 in-k
Allowable moment based on distortion buckling (Mad)	106.25 in-k
Allowable shear force in web (solid section)	10885 lb
Allowable shear force in web (perforated section)	5938 lb
Unbraced length (Lu)	72.7 in
3 ()	
Torsional Properties	
Torsional Properties St. Venant torsional constant (J x 1000)	5.696 in ⁴
·	5.696 in ⁴ 38.834 in ⁶
St. Venant torsional constant (J x 1000)	_
St. Venant torsional constant (J x 1000) Warping constant (Cw)	38.834 in ⁶
St. Venant torsional constant (J x 1000) Warping constant (Cw) Distance from shear center to neutral axis (Xo)	38.834 in ⁶ -2.710 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.

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
 - 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

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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).