



Product category: S300 (3" Flange Structural Stud)
Product name: 400S300-33 (33ksi, CP60) P - Punched
 33mils (20ga) Coating: CP60 per ASTM C955
 Color coding: White

Geometric Properties

Web depth	4.000 in		
Flange width	3.000 in	Punchout width	1.50 in
Stiffening lip	0.625 in	Punchout length	4.00 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		

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.379 in ²
Member weight per foot of length	1.29 lb/ft
Moment of inertia (Ix)	1.084 in ⁴
Section modulus (Sx)	0.542 in ³
Radius of gyration (Rx)	1.692 in
Gross moment of inertia (Iy)	0.479 in ⁴
Gross radius of gyration (Ry)	1.125 in

Effective Section Properties, Strong Axis

Effective Area (Ae)	0.207 in ²
Moment of inertia for deflection (Ix)	0.990 in ⁴
Section modulus (Sx)	0.366 in ³
Allowable bending moment (Ma)	7.23 in-k
Allowable moment based on distortion buckling (Mad)	7.63 in-k
Allowable shear force in web (solid section)	976 lb
Allowable shear force in web (perforated section)	595 lb
Unbraced length (Lu)	73.9 in

This section does not meet the requirements of AISI North American Specifications. Increase the thickness or contact ClarkDietrich Technical Services @ 888-437-3244 for design solutions.

Torsional Properties

St. Venant torsion constant (J x 1000)	0.151 in ⁴
Warping constant (Cw)	1.786 in ⁶
Distance from shear center to neutral axis (Xo)	-2.621 in
Distance between shear center and web centerline (m)	1.510 in
Radii of gyration (Ro)	3.316 in
Torsional flexural constant (Beta)	0.375

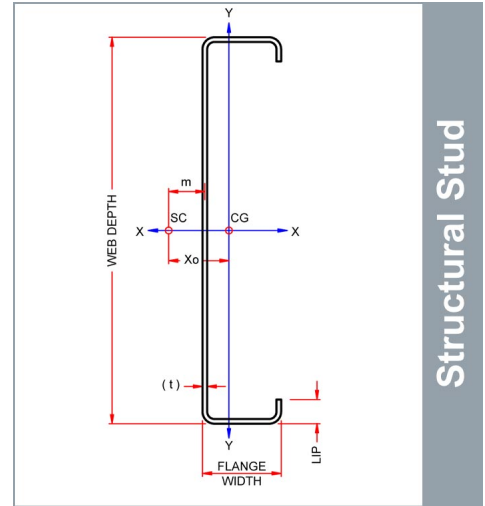
ASTM & Code Standards:

- AISI North American Specification [NASPEC] S100-12
- * Effective properties incorporate the strength increase from the cold work of forming
- Gross properties are based on the cross section away from the punchouts
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- ClarkDietrich's structural and nonstructural framing products comply with the SFIA Code Compliance Certification Program, ICC-ES ESR-1166P and Intertek CCRR-0206
- For installation & storage information refer to ASTM C1007
- SDS & Product Certification Information is available at tools.clarkdietrich.com

Sustainability Credits:

For more details and LEED letters contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED
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).
LEED 2009 Credit MR 2 & MR 4 -- ClarkDietrich's steel products are 100% recyclable and have a national average recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at (info@clarkdietrich.com / 888-437-3244)

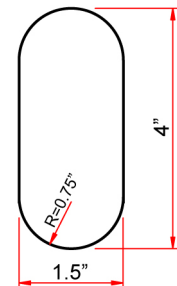
05.40.00 (Cold-Formed Metal Framing)



Structural Stud

Used in framing applications:

- Load-bearing walls
- Curtain walls
- Tall interior walls
- Floor & ceiling joists
- Trusses



Structural Punchout

East market punchout spacing: 12" from lead end then 24" o.c.

West market punchout spacing: 24" from lead end then 24" o.c.

Project Information

Name:
Address:

Contractor Information

Name:
Contact:
Phone:
Fax:

Architect Information

Name:
Contact:
Phone:
Fax: