

Product Submittal Sheet

Technical Services: 888-437-3244 Engineering Services: 877-832-3206 Sales: 800-543-7140 clarkdietrich.com

Product category: S300 (3" Flange Structural Stud)

Product name: 1000S300-43 (33ksi, CP60) P - Punched

43mils (18ga) Coating: CP60 per ASTM C955

Color coding: Yellow

Geometric Properties

Web depth 10.000 in

Flange width 3.000 in Punchout width 1.50 in Stiffening lip 0.625 in Punchout length 4.00 in Design thickness 0.0451 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 Section, Strong Axis

Cross sectional area (A)	0.763 in ²
Member weight per foot of length	2.59 lb/ft
Moment of inertia (Ix)	11.323 in⁴
Section modulus (Sx)	2.265 in ³
Radius of gyration (Rx)	3.853 in
Gross moment of inertia (Iy)	0.831 in⁴
Gross radius of gyration (Ry)	1.044 in

Effective Section Properties, Strong Axis

Effective Area (Ae) 0.303 in² Moment of inertia for deflection (Ix) 11.180 in⁴ Section modulus (Sx) 1.625 in³ Allowable bending moment (Ma) 32.11 in-k Allowable moment based on distortion buckling (Mad) 28.63 in-k Allowable shear force in web (solid section) 836 lb Allowable shear force in web (perforated section) 836 lb Unbraced length (Lu) 71.7 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)

Warping constant (Cw)

Distance from shear center to neutral axis (Xo)

Distance between shear center and web centerline (m)

Radii of gyration (Ro)

Torsional flexural constant (Beta)

0.517 in⁴
16.099 in⁶
-1.905 in
1.191 in
4.424 in
0.814

Web-depth to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

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 comply with the SFIA Code Compliance
- Certification Program, ICC-ES ESR-1166P and Intertek CCRR-0206
- For installation & storage information refer to ASTM C1007

SSSSin Brindyce Certification Information is available at itools.clarkdietrich.com

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).

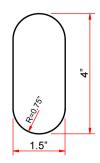
LEED 2009 Credit MR 2 & MR 4 -- Clark Dietrich's steel products are 100% recyclable and have a national average recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at (info@clarkdietrich.com / 888-437-3244)

Structural Stud

05.40.00 (Cold-Formed Metal Framing)

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	Contractor Information	Architect Information
Name:	Name:	Name:
Address:	Contact:	Contact:
	Phone:	Phone:
	Fax:	Fax:
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