

# **Product Submittal Sheet**

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

Product category: S162 (1-5/8" Flange Structural Stud)
Product name: 600S162-43 (33ksi, CP60) P - Punched

43mils (18ga) Coating: CP60 per AISI S240

Color coding: Yellow

#### **Geometric Properties**

Web depth 6.000 in Flange width 1.625 in Punchout width 1.50 in 4.00 in Stiffening lip 0.500 in Punchout length Design thickness 0.0451 in Min. steel thickness 0.0428 in Yield strength, Fy Fy with Cold-Work, Fya 36.3 ksi 33 ksi Ultimate, Fu 45.0 ksi

#### **Gross Section Properties of Full Section, Strong Axis**

Cross sectional area (A)	0.447 in <sup>2</sup>
Member weight per foot of length	1.52 lb/ft
Moment of inertia (Ix)	2.316 in⁴
Section modulus (Sx)	0.772 in <sup>3</sup>
Radius of gyration (Rx)	2.277 in
Gross moment of inertia (ly)	0.148 in <sup>4</sup>
Gross radius of gyration (Ry)	0.576 in

#### **Effective Section Properties, Strong Axis**

Effective Area (Ae)	0.256 in <sup>2</sup>
Moment of inertia for deflection (Ix)	2.316 in⁴
Section modulus (Sx)	0.767 in <sup>3</sup>
Allowable bending moment (Ma)	16.68 in-k
Allowable moment based on distortion buckling (Mad)	13.06 in-k
Allowable shear force in web (solid section)	1416 lb
Allowable shear force in web (perforated section)	1240 lb
Unbraced length (Lu)	39.0 in

#### **Torsional Properties**

St. Venant torsion constant (J x 1000)	0.303 in⁴
Warping constant (Cw)	1.095 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-1.062 in
Distance between shear center and web centerline (m)	0.670 in
Radii of gyration (Ro)	2.577 in
Torsional flexural constant (Beta)	0.830

## **Code Approvals & Performance Standards**

# AISI S100-16 - North American Specification for the Design of CFS Structural Members

- Effective properties incorporate the strength increase from the cold work of forming
- Gross properties are based on the cross section away from the punchouts

#### AISI S240-15 - North American Standard for Cold-Formed Steel Structural Framing

- 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)

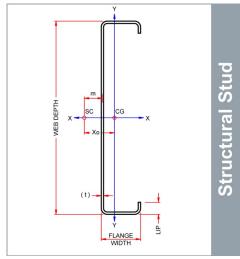
#### AISI S202-15 - Code of Standard Practice for Cold-Formed Steel Structural Framing

• Section F3 - Delivery, Handling and Storage of Materials

# ClarkDietrich's structural framing comply with:

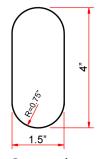
- Intertek CCRR-0206
- SFIA Code Compliance Certification Program
- ICC-ES ESR-1166P
- ICC-ES ESR-1166P LABC and LARC Supplement
- SDS & Product Certification Information is available at www.clarkdietrich.com/SupportDocs

## 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.

## 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)