**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

**Product Category:** S162 (1-5/8" Flange Structural Stud)

**Product Name:**
- 600S162-43 (33ksi, CP60) P - Punched
  - 43mils (18ga)
  - Coating: CP60 per ASTM C955
  - Color coding: Yellow

**Geometric Properties**

- **Web depth:** 6.000 in
- **Flange width:** 1.625 in
- **Punchout width:** 1.50 in
- **Stiffening lip:** 0.500 in
- **Punchout length:** 4.00 in
- **Design thickness:** 0.0451 in
- **Min. steel thickness:** 0.0428 in
- **Yield strength, Fy:** 33 ksi
- **Fu:** 45.0 ksi

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

- **Cross sectional area (A):** 0.447 in$^2$
- **Member weight per foot of length:** 1.52 lb/ft
- **Moment of inertia (Ix):** 2.316 in$^4$
- **Section modulus (Sx):** 0.772 in$^3$
- **Radius of gyration (Rx):** 2.277 in
- **Gross moment of inertia (Iy):** 0.148 in$^4$
- **Gross radius of gyration (Ry):** 0.576 in

**Effective Section Properties, Strong Axis**

- **Effective Area (Ae):** 0.256 in$^2$
- **Moment of inertia for deflection (Ix):** 2.316 in$^4$
- **Section modulus (Sx):** 0.767 in$^3$
- **Allowable bending moment (Ma):** 16.68 in-k
- **Allowable moment based on distortion buckling (Mad):** 14.47 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 in$^4$
- **Warping constant (Cw):** 1.095 in$^6$
- **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

**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
- SDS & Product Certification Information is available at [itools.clarkdietrich.com](http://itools.clarkdietrich.com)

**Sustainability Credits:**

For more details and LEED letters contact Technical Services at 888-437-3244 or visit [www.clarkdietrich.com/LEED](http://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)

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**Project Information**

Name:
Address:

**Contractor Information**

Name:
Contact:
Phone:
Fax:

**Architect Information**

Name:
Contact:
Phone:
Fax:

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