Product Submittal Sheet

05.40.00 (Cold-Formed Metal Framing)

[Diagram of 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:**
- 600S162-54 (50ksi, CP60) P - Punched
- 54mils (16ga)
- Coating: CP60 per ASTM C955
- Color coding: Green

**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: 0.0566 in
- Min. steel thickness: 0.0538 in
- Yield strength, Fy: 50 ksi
- Fy with Cold-Work, Fya: 55.3 ksi
- Ultimate, Fu: 65.0 ksi

**Gross Section Properties of Full Section, Strong Axis**
- Cross sectional area (A): 0.556 in²
- Member weight per foot of length: 1.89 lb/ft
- Moment of inertia (Ix): 2.861 in⁴
- Section modulus (Sx): 0.954 in³
- Radius of gyration (Rx): 2.268 in
- Gross moment of inertia (Iy): 0.180 in⁴
- Gross radius of gyration (Ry): 0.570 in

**Effective Section Properties, Strong Axis**
- Effective Area (Ae): 0.307 in²
- Moment of inertia for deflection (Ix): 2.860 in⁴
- Section modulus (Sx): 0.916 in³
- Allowable bending moment (Ma): 30.33 in-k
- Allowable moment based on distortion buckling (Mad): 23.17 in-k
- Allowable shear force in web (solid section): 2823 lb
- Unbraced length (Lu): 31.4 in

**Torsional Properties**
- St. Venant torsion constant (J x 1000): 0.594 in⁴
- Warping constant (Cw): 1.337 in⁶
- Distance from shear center to neutral axis (Xo): -1.049 in
- Distance between shear center and web centerline (m): 0.663 in
- Radii of gyration (Ro): 2.563 in
- Torsional flexural constant (Beta): 0.833

**ASTM & Code Standards:**
- AISI North American Specification [NASPEC] S100-16
- 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

**Sustainability Credits:**
- 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

[Project Information: Name, Address]
[Contractor Information: Name, Contact, Phone, Fax]
[Architect Information: Name, Contact, Phone, Fax]

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