Product Submittal Sheet

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

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**Product Submittal Sheet**

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

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**Product Submittal Sheet**

**Product category**: S162 (1-5/8" Flange Structural Stud)  
**Product name**: 362S162-54 (50ksi, CP60) P - Punched  
54mils (16ga)  
Coating: CP60 per ASTM C955  
Color coding: Green

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**Geometric Properties**

- **Web depth**: 3.625 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  
- **Ultimate, Fu**: 65.0 ksi

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

- **Cross sectional area (A)**: 0.422 in²  
- **Member weight per foot of length**: 1.44 lb/ft  
- **Moment of inertia (Ix)**: 0.873 in⁴  
- **Section modulus (Sx)**: 0.482 in³  
- **Radius of gyration (Rx)**: 1.438 in  
- **Gross moment of inertia (Iy)**: 0.154 in⁴  
- **Gross radius of gyration (Ry)**: 0.605 in

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**Effective Section Properties, Strong Axis**

- **Effective Area (Ae)**: 0.296 in²  
- **Moment of inertia for deflection (Ix)**: 0.873 in⁴  
- **Section modulus (Sx)**: 0.444 in³  
- **Allowable bending moment (Ma)**: 13.28 in-k  
- **Allowable moment based on distortion buckling (Mad)**: 13.60 in-k  
- **Allowable shear force in web (solid section)**: 3372 lb  
- **Allowable shear force in web (perforated section)**: 1016 lb  
- **Unbraced length (Lu)**: 34.4 in

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**Torsional Properties**

- **St. Venant torsion constant (J x 1000)**: 0.451 in⁴  
- **Warping constant (Cw)**: 0.457 in⁶  
- **Distance from shear center to neutral axis (Xo)**: -1.283 in  
- **Distance between shear center and web centerline (m)**: 0.774 in  
- **Radii of gyration (Ro)**: 2.020 in  
- **Torsional flexural constant (Beta)**: 0.597

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**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**

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**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)

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**Project Information**

- **Name**:  
- **Address**:  

**Contractor Information**

- **Name**:  
- **Contact**:  
- **Phone**:  
- **Fax**:  

**Architect Information**

- **Name**:  
- **Contact**:  
- **Phone**:  
- **Fax**:  

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