09.22.16 (Non-Structural Metal Framing)

ASTM & Code Standards:
- AISI-NASPEC 2007 w/S2-10
- Meets or exceeds ASTM C645
- ICC ESR-1464 - Evaluation Report
- SDS & Product Certification Information available at www.clarkdietrich.com

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)

Product Submittal Sheet

Product category: (TLD) TRAKLOC Deflection Stud
Product name: 362TLD125-24 57ksi G40 - Punched
3-5/8” TRAKLOC Stud 24 mils (20ga EQ)

Coating: G40
Color coding: Pink

Geometric Properties
- Web depth: 3.625 in
- Flange width: 1.250 in
- Stiffening lip: 0.288 in
- Design thickness: 0.0250 in
- Yield stress, Fy: 57 ksi

Gross Section Properties of Full Section, Strong Axis
- Cross sectional area (A): 0.163 in²
- Moment of inertia (Iₓ): 0.327 in⁴
- Radius of gyration (Rx): 1.416 in
- Gross moment of inertia (Iᵧ): 0.033 in⁴
- Gross radius of gyration (Ry): 0.448 in

Effective Section Properties, Strong Axis
- Effective area (Aₑ): 0.067 in²
- Section modulus (Sₓₑ): 0.306 in³
- Allowable bending moment - Local buckling (Mal): 3710 in-lbs
- Allowable bending moment - Distortional buckling (Mad): 3986 in-lbs
- Allowable shear force in web (Unpunched) (Vag): 402 lb
- Allowable shear force in web (Punched) (Vanet): 292 lb

Torsional Properties
- St. Venant torsion constant (J x 1000): 0.0339 in⁴
- Warping constant (Cw): 0.088 in⁶
- Distance from shear center to neutral axis (Xo): -0.866 in
- Radius of gyration (Ro): 1.719 in
- Torsional flexural constant (Beta): 0.746
- Stud/track end reaction (Rx): 107 lbs
- Unbraced Length (Lu): 23.5 in

Notes:
- Calculated properties are based on AISI S100-07 w/ S2-10 Supplement and AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members.
- Gross and torsional properties are based on full-unreduced cross section of the studs, away from punch-outs.
- The allowable moment based on local buckling (Mal) is based on the compression flange continuously braced.
- The distortional buckling moment (Mad) does not consider the beneficial effect of sheathing to rotational stiffness.
- For deflection calculations, use the effective moment of inertia.
- Stud/Track End Reaction (Rx) is the maximum end reaction (web crippling) capacity based on a minimum bearing length of 1 inch.
- East Coast Punch Pattern: Center of knockouts are 12” from the leading edge then 48” o.c.
- West Coast Punch Pattern: Center of knockouts are 24” from the leading edge then 24” o.c.

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**Product Submittal Sheet**

<table>
<thead>
<tr>
<th>Technical Services: 888-437-3244</th>
<th>Engineering Services: 877-832-3206</th>
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</thead>
<tbody>
<tr>
<td>Sales: 800-543-7140</td>
<td>clarkdietrich.com</td>
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</table>

**Product category:** (TLD) TRAKLOC Deflection Stud  
**Product name:** 362TLD125-24 57ksi G40 - Punched  
3-5/8" TRAKLOC Stud 24 mils (20ga EQ)

### 3-5/8" TRAKLOC Stud 24 mils (20ga EQ) Drywall Stud - COMPOSITE Limiting Heights (AC86-2012)

(1 layer) 5/8" Type X Gypsum Board

<table>
<thead>
<tr>
<th>Spacing (inches)</th>
<th>5 psf</th>
<th>7.5 psf</th>
<th>10 psf</th>
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<td>24</td>
<td>19'-1&quot;</td>
<td>15'-2&quot;</td>
<td>13'-3&quot;</td>
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</table>

**Composite Table Notes:**
- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2012.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- In accordance with current building codes and AISI design standards, the 1/3 Stress Increase for strength was not used.
- The composite limiting heights provided in the tables are based on a single layer of 5/8" Type X Gypsum Board complying with ASTM C1396 and from the following manufacturers: American Gypsum, CertainTeed, Georgia Pacific, Continental, National Gypsum or USG.
- The gypsum board must be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754 using minimum No. 6 Type S fine thread Drywall head screws spaced as listed below:
  - Screws spaced a maximum of 16 inch on-center to framing members spaced at 12 inch on-center.
  - Screws spaced a maximum of 12 inch on-center to framing members spaced at 16 inch or 24 inch on-center.
  - Screws spaced 16 inch on-center to the top and bottom track.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- f: Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- s: Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

### 3-5/8" TRAKLOC Stud 24 mils (20ga EQ) Drywall Stud - NON-COMPOSITE Limiting Heights (FULLY BRACED)

<table>
<thead>
<tr>
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<tr>
<td>24</td>
<td>15'-9&quot;</td>
<td>12'-7&quot;</td>
<td>11'-0&quot;</td>
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</table>

**Non-Composite Table Notes:**
- Heights are based on AISI S100-07 w/S2-10 Supplement, and AISI S100-12 Specification using steel properties alone.
- Compression flange must be continuously braced.
- End bearing must be 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- e: Web stiffeners are required at the stud/track connection.

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**Project Information**

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

**Contractor Information**

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

**Architect Information**

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

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