

# **Product Submittal Sheet**

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

Product category: (TLD) TRAKLOC Deflection Stud

362TLD125-18 33ksi G40 - Punched
3-5/8" TRAKLOC Stud 18 mils (25ga)

Coating: G40
Color coding: None

**Geometric Properties** 

Web depth	3.625 in	Weight	0.419 lb/ft
Flange width	1.250 in	Punchout width	1.500 in
Stiffening lip	0.288 in	Punchout length	4.000 in
Design thickness	0.0188 in	Minimum thickness	0.0179 in
Yield stress, Fy	33 ksi		

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

Cross sectional area (A)	0.123 in <sup>2</sup>
Moment of inertia (Ix)	0.248 in⁴
Radius of gyration (Rx)	1.419 in
Gross moment of inertia (ly)	0.025 in⁴
Gross radius of gyration (Ry)	0.451 in

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

Effective area (Ae)	0.056 in <sup>2</sup>
Moment of inertia for deflection (Ixe)	0.243 in⁴
Section modulus (Sxe)	0.091 in <sup>3</sup>
Allowable bending moment - Local buckling (Mal)	1797 in-lbs
Allowable bending moment - Distortional buckling (Mad)	1914 in-lbs
Allowable shear force in web (Unpunched) (Vag)	170 lb
Allowable shear force in web (Punched) (Vanet)	165 lb

## **Torsional Properties**

St. Venant torsion constant (J x 1000)	0.0145 in⁴
Warping constant (Cw)	0.068 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-0.873 in
Radii of gyration (Ro)	1.726 in
Torsional flexural constant (Beta)	0.744

Stud/track end reaction (Rx) 99 lbs Unbraced Length (Lu) 31.0 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.

## 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)

# WEB DEPTH WEB DEPTH TRAKLOC® Drywall Stud

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



# Project Information Contractor Information Architect Information Name: Name: Name: Address: Contact: Contact: Phone: Phone: Phone: Fax: Fax:

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362TLD125-18 33ksi G40 - Punched
3-5/8" TRAKLOC Stud 18 mils (25ga)

## 3-5/8" TRAKLOC Stud 18 mils (25ga) Drywall Stud - COMPOSITE Limiting Heights (AC86-2012)

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

Spacing	5 psf		7.5 psf			10 psf			
(inches)	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12	21'-7"	17'-11"	15'-8"	15'-10"s	15'-8"s	13'-8"	11'-10"s	11'-10"s	11'-10"s
16	17'-9"s	16'-8"	14'-7"	11'-10"s	11'-10"s	11'-10"s	8'-11"s	8'-11"s	8'-11"s
24	11'-10"s	11'-10"s	11'-10"s	7'-11"s	7'-11"s	7'-11"s	-	-	-

### Composite Table Notes:

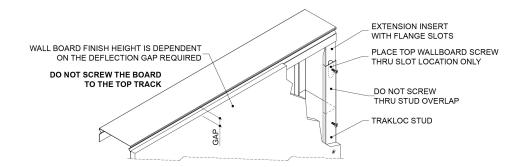
- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2012.
- · Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- In accordance with current building codes and AISI design standards, the 1/3 Stress 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 bugle 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 16inch 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 18 mils (25ga) Drywall Stud - NON-COMPOSITE Limiting Heights (FULLY BRACED)

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Spacing	5 psf			7.5 psf			10 psf		
(inches)	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12	15'-6"e	14'-9"	12'-10"	12'-8"e	12'-8"e	12'-8"e	10'-11"e	10'-11"e	10'-11"e
16	13'-5"e	13'-4"e	11'-8"e	10'-11"e	10'-11"e	10'-11"e	9'-6"e	9'-6"e	9'-6"e
24	10'-11"e	10'-11"e	10'-2"e	8'-11"e	8'-11"e	8'-11"e	7'-9"e	7'-9"e	7'-9"e

## 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.



Project Information	Contractor Information	Architect Information
Name:	Name:	Name:
Address:	Contact:	Contact:
	Phone:	Phone:
	Fax:	Fax:
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