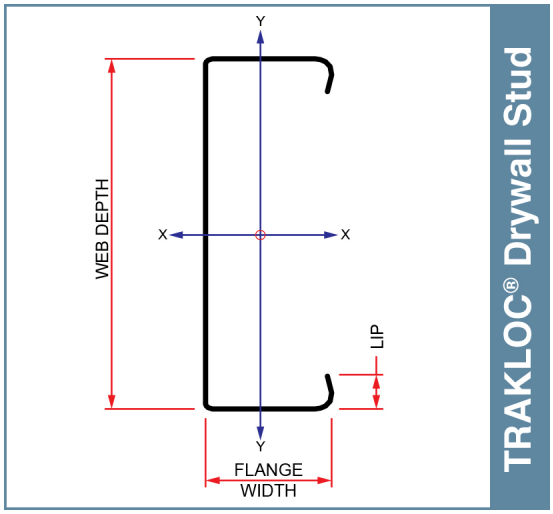
Product Submittal Sheet

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

Product category: (TLF) TRAKLOC Fixed Length Stud
Product name: **400TLF125-30 33ksi G40 - Punched**
4" TRAKLOC Stud 30 mils (20ga DW)
Coating: G40
Color coding: Pink

09.22.16 (Non-Structural Metal Framing)



Geometric Properties

Web depth	4.000 in	Weight	0.728 lb/ft
Flange width	1.250 in	Punchout width	1.500 in
Stiffening lip	0.288 in	Punchout length	4.000 in
Design thickness	0.0312 in	Minimum thickness	0.0296 in
Yield stress, Fy	33 ksi		

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.214 in^2
Moment of inertia (Ix)	0.509 in^4
Radius of gyration (Rx)	1.542 in
Gross moment of inertia (Iy)	0.041 in^4
Gross radius of gyration (Ry)	0.439 in

Effective Section Properties, Strong Axis

Effective area (Ae)	0.114 in^2
Moment of inertia for deflection (Ixe)	0.505 in^4
Section modulus (Sxe)	0.199 in^3
Allowable bending moment - Local buckling (Mal)	3930 in-lbs
Allowable bending moment - Distortional buckling (Mad)	4261 in-lbs
Allowable shear force in web (Unpunched) (Vag)	708 lb
Allowable shear force in web (Punched) (Vanet)	487 lb

Torsional Properties

St. Venant torsion constant (J x 1000)	0.0695 in^4
Warping constant (Cw)	0.134 in^6
Distance from shear center to neutral axis (Xo)	-0.825 in
Radii of gyration (Ro)	1.802 in
Torsional flexural constant (Beta)	0.791
Stud/track end reaction (Rx)	161 lbs
Unbraced Length (Lu)	30.6 in

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

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)

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

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Product category: (TLF) TRAKLOC Fixed Length Stud
Product name: **400TLF125-30 33ksi G40 - Punched**
4" TRAKLOC Stud 30 mils (20ga DW)

4" TRAKLOC Stud 30 mils (20ga DW) Drywall Stud - COMPOSITE Limiting Heights (AC86-2012)

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

Spacing (inches)	5 psf			7.5 psf			10 psf		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12	26'-3"	20'-11"	18'-4"	23'-0"	18'-5"	16'-3"	20'-10"	16'-10"	14'-11"
16	24'-3"	19'-11"	17'-5"	21'-2"	17'-5"	15'-3"	19'-3"	15'-10"	13'-11"
24	21'-6"	17'-8"	15'-7"	18'-9"	15'-5"	13'-7"	17'-1"	14'-0"	12'-4"

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.
- 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.

4" TRAKLOC Stud 30 mils (20ga DW) Drywall Stud - NON-COMPOSITE Limiting Heights (FULLY BRACED)

Spacing (inches)	5 psf			7.5 psf			10 psf		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12	22'-11"	18'-9"	16'-5"	18'-8"	18'-6"	16'-2"	16'-2"	16'-2"	14'-8"
16	19'-10"	17'-1"	14'-11"	16'-2"	16'-2"	14'-8"	14'-0"	14'-0"	13'-4"
24	16'-2"	14'-11"	13'-0"	13'-3"	13'-3"	12'-10"	11'-5"	11'-5"	11'-5"

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.
- e: Web stiffeners are required at the stud/track connection.

Project Information
Name:
Address:

Contractor Information
Name:
Contact:
Phone:
Fax:

Architect Information
Name:
Contact:
Phone:
Fax: