DriftTrak® - Headed Stud

Slab Integrated Bypass

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Description

DriftTrak® - Headed Stud saves the time and expense of installing DriftTrak after the concrete slab has been poured, by integrating it directly into the slab before pouring. The headed studs come preinstalled to the DriftTrak and function as the attachment to the slab instead of welding to the pour stop angle and use of PAF's or anchors. Once concrete is poured, the DriftTrak is ready to support exterior steel framing using any DriftTrak Bypass clip (DTSLB-HD or DTLB-HD) to accommodate vertical deflection and lateral drift requirements or provide a rigid attachment to the floor slab.

As with standard DriftTrak, DriftTrak Headed Stud also simplifies panel installation by allowing the installer to twist DrifTrak Bypass clips onto the DriftTrak as the prefabricated wall panel is hoisted into position, so they can be quickly and easily aligned to studs for attachment before the crane is unlocked from the panel. Vertical deflection and drift movement can be left intact or a locking angle can be installed to prevent lateral drift if not required.

US Patent #7,503,150 & Patent Pending

Material Composition

Track Material: ASTM A1003/A1003M Structural Grade 50 (340) Type H, ST50H (ST340H): 50ksi (340MPa) minimum yield strength, 65ksi (450MPa) minimum tensile strength, 97mil minimum thickness (12 gauge, 0.1017" design thickness) with ASTM A653/A653M G60 (Z180) hot dipped galvanized coating.

Headed Stud Material: ASTM A29/A108, Grades 1010 through 1020 or equivalent, 45ksi (310MPa) minimum yield strength, 55ksi (380MPa) minimum tensile strength, ⅜" diam. x 3 ⅛" length with ¾" head diameter. Recommended ASD steel strength per stud in tension or shear = 1,600 lbs.

Clip Material: *DriftTrak – Headed Stud can be used with DTSLB-HD and DTLB-HD clips:* ASTM A1003/A1003M Structural Grade 50 (340) Type H, ST50H (ST340H): 50ksi (340MPa) minimum yield strength, 65ksi (450MPa) minimum tensile strength, 97mil minimum thickness (12 gauge, 0.1017" design thickness) with ASTM A653/A653M G90 (Z275) hot dipped galvanized coating.

Nomenclature

DriftTrak® - Headed Stud comes 12' lengths, with headed studs in a single, centered row (See drawing on next page). To specify DriftTrak, list "DTH," followed by the length.

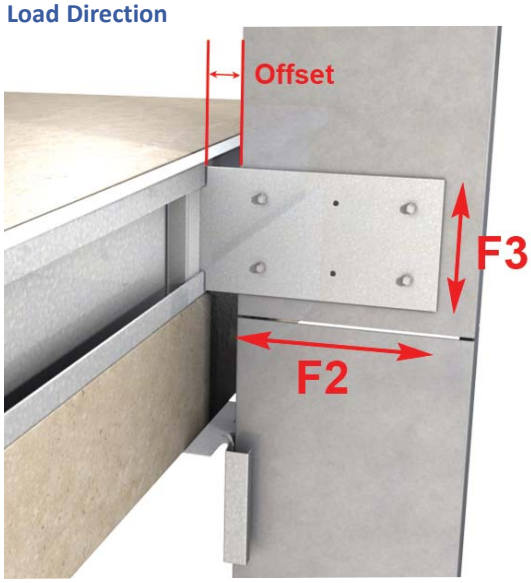
Example: *12 ft. length*
Designate: *DriftTrak® DTH – 12ft.*

DriftTrak - Headed Stud Allowable Loads

DriftTrak® Headed Studs with DTSLB600-HD, Recommended Allowable Load (lbs): F2
DriftTrak® Headed Studs with DTLB600-HD, Recommended Allowable Load (lbs): F2 & F3

Stud		F2 Allowable Loads				F3 Allowable Loads	
		DTSLB600-HD		DTLB600-HD		DTLB600-HD *Offset = 1" max*	
Thickness Mils (ga)	Yield Strength (ksi)	w/2 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/6 #12 Screws	w/4 #12 Screws	w/6 #12 Screws
33 (20)	33	377	565	754	1,130	258	309
33 (20)	50	544	817	1,089	1,525	373	446
43 (18)	33	561	841	1,122	1,525	384	460
43 (18)	50	810	1,215	1,525	1,525	555	664
54 (16)	33	789	1,183	1,525	1,525	540	647
54 (16)	50	1,139	1,525	1,525	1,525	780	934
68 (14)	50	1,525	1,525	1,525	1,525	1,103	1,321
97 (12)	50	1,525	1,525	1,525	1,525	1,163	1,392
Max Allowable Clip Load		**1,525**		**1,525**		**1,903**	

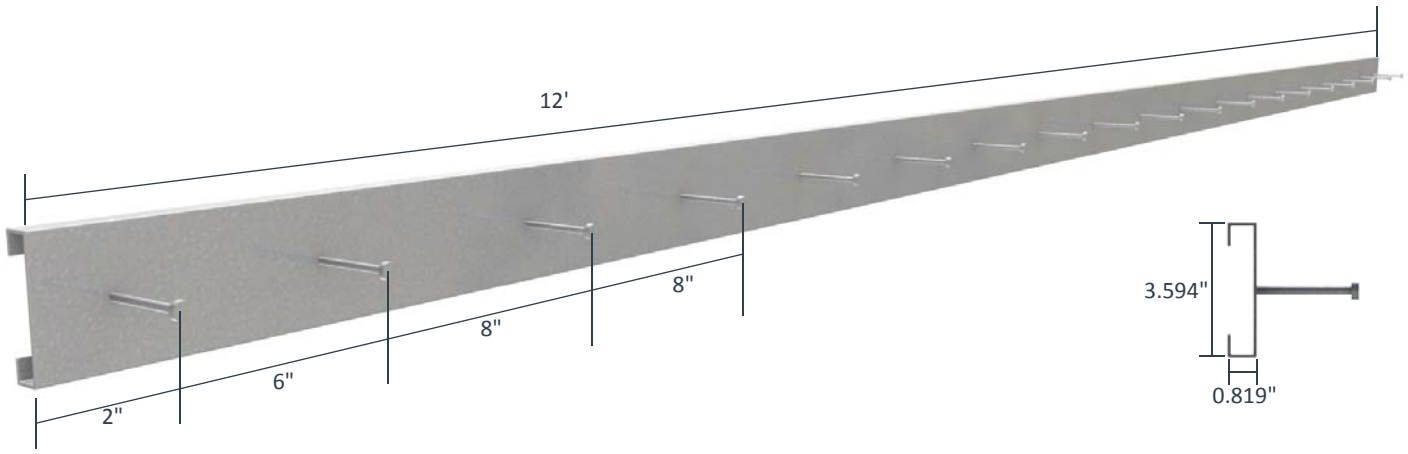
Load Direction

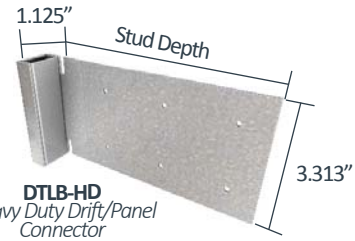


Notes:

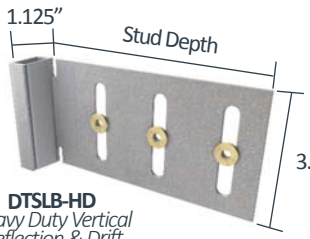
- Recommended ASD steel strength per headed stud in tension or shear = 1,600 lbs.
- Allowable load tables incorporate eccentric loading of fasteners.
- Loads listed reflect force in a single direction. When multiple loads react on the connection, it is the responsibility of the designer to check the interaction of forces.
- Torsional effects are considered on screw group for F3 allowable loads. It is assumed that all of the torsional moment is taken by the connection to the stud.
- Design loads are for attachment of DriftTrak to stud only. Load tables reflect horizontal loads (F2) and vertical loads (F3)
- Allowable loads have not been increased for wind, seismic, or other factors.
- Clips are manufactured to fit into the DriftTrak and provide a rigid/slip connection to the stud, and free lateral movement of the structure.
- One row of bridging is recommended at a maximum distance of 18" from DriftTrak to resist torsional effects.

DriftTrak® with Headed Studs: Dimensions, Layout and Stud Spacing





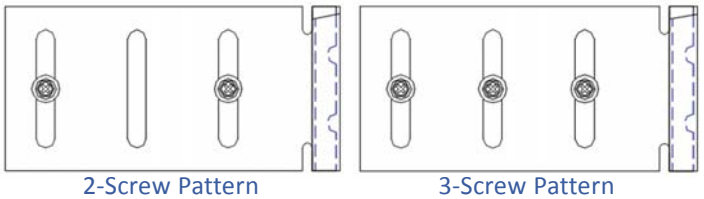
DTLB-HD
Heavy Duty Drift/Panel Connector



DTSLB-HD
Heavy Duty Vertical Deflection & Drift Connector

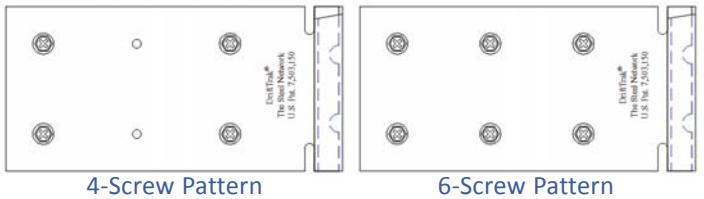
Fastener Patterns

DriftTrak® DTSLB-HD



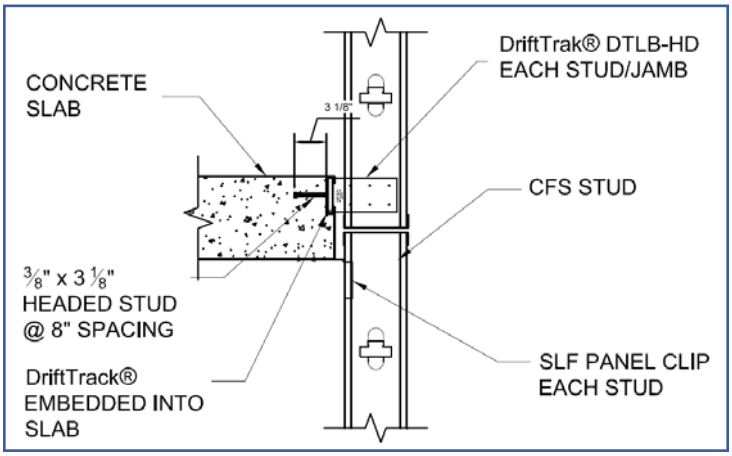
2-Screw Pattern | 3-Screw Pattern

DriftTrak® DTLB-HD

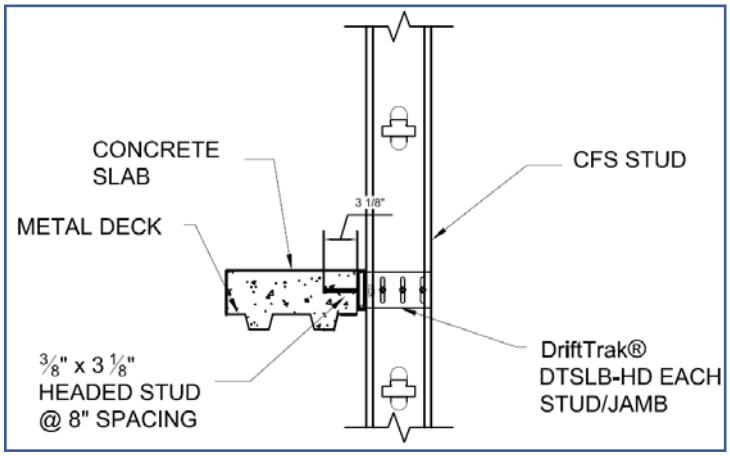


4-Screw Pattern | 6-Screw Pattern

Example Details



DriftTrak® DTLB-HD with Headed Studs: Top Attachment - Slab Insert



DriftTrak® DTSLB-HD with Headed Studs: Attachment to Slab on Metal Deck