

# DriftClip® DSLS

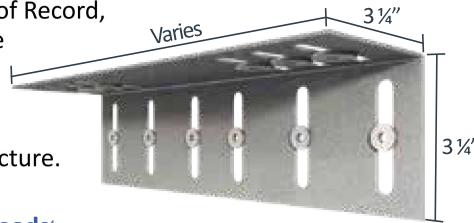
Bypass Structure



### Material Composition

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.

The attachment of DriftClip DSLS to the primary structure may be made with PAFs, screws, or bolt anchors depending on the base material (steel or concrete) and the design configuration. The step bushings used for attachment to structure are designed for use with ¼" maximum diameter fasteners. Designing this connection is the responsibility of the Structural Engineer of Record, and a minimum of two fasteners must be used. A minimum of 3.5" of DSLS is required for attachment to steel structure and a minimum of 6" is required for attachment to concrete structure.



US Patent #6,612,087

### DriftClip DSLS Allowable (Unfactored) Loads:

F2 Load Direction - Fastener Pattern 1								
Screw Patterns with #12 Screws	DSLS362/400-9	DSLS362/400-12	DSLS600-10		DSLS600-12		DSLS600-15	
	w/2 Screws	w/2 Screws	w/2 Screws	w/3 #12 Screws	w/2 Screws	w/3 Screws	w/2 Screws	w/3 Screws
33mil (20ga), 33ksi Stud	376	376	376	564	376	564	376	564
33mil (20ga), 50ksi Stud	544	544	544	816	544	816	544	816
43mil (18ga), 33ksi Stud	560	560	560	840	560	840	560	840
43mil (18ga), 50ksi Stud	810	810	810	1,204	810	1,215	810	1,215
54mil (16ga), 33ksi Stud	788	788	788	1,182	788	1,182	788	1,182
54mil (16ga), 50ksi Stud	961	1,138	1,138	1,204	1,138	1,707	1,138	1,707
68mil (14ga), 50ksi Stud	961	1,237	1,204	1,204	1,434	1,862	1,434	1,903
97mil (12ga), 50ksi Stud	961	1,237	1,204	1,204	1,434	1,862	1,434	1,903
<b>Max Allowable Clip Load</b>	<b>961</b>	<b>1,237</b>	<b>1,204</b>		<b>1,862</b>		<b>1,903</b>	

DriftClip® DSLS, Recommended Allowable Load (lbs): F2 - Fastener Pattern 1								
Screw Patterns with #12 Screws	DSLS600-20		DSLS800-12		DSLS800-15		DSLS800-20	
	w/2 Screws	w/3 Screws	w/2 #12 Screws	w/3 Screws	w/2 Screws	w/3 Screws	w/2 Screws	w/3 Screws
33mil (20ga), 33ksi Stud	376	564	376	564	376	564	376	564
33mil (20ga), 50ksi Stud	544	816	544	816	544	816	544	816
43mil (18ga), 33ksi Stud	560	840	560	840	560	840	560	840
43mil (18ga), 50ksi Stud	810	1,215	810	1,164	810	1,215	810	1,215
54mil (16ga), 33ksi Stud	788	1,182	788	1,164	788	1,182	788	1,182
54mil (16ga), 50ksi Stud	1,138	1,707	1,138	1,164	1,138	1,707	1,138	1,707
68mil (14ga), 50ksi Stud	1,434	2,151	1,164	1,164	1,434	1,894	1,434	1,822
97mil (12ga), 50ksi Stud	1,434	2,151	1,164	1,164	1,434	1,894	1,434	1,822
<b>Max Allowable Clip Load</b>	<b>2,151</b>		<b>1,164</b>		<b>1,894</b>		<b>1,822</b>	

DriftClip® DSLS, Recommended Allowable Load (lbs): F2 - Fastener Pattern 2								
Screw Patterns with #12 Screws	DSLS362/400-9	DSLS362/400-12	DSLS600-10		DSLS600-12		DSLS600-15	
	w/2 Screws	w/2 Screws	w/2 Screws	w/3 Screws	w/2 Screws	w/3 Screws	w/2 Screws	w/3 Screws
33mil (20ga), 33ksi Stud	376	376	376	564	376	564	376	564
33mil (20ga), 50ksi Stud	544	544	544	816	544	816	544	816
43mil (18ga), 33ksi Stud	560	560	560	840	560	840	560	840
43mil (18ga), 50ksi Stud	810	810	810	1,018	810	1,215	810	1,215
54mil (16ga), 33ksi Stud	788	788	788	1,018	788	1,182	788	1,182
54mil (16ga), 50ksi Stud	943	1,078	1,018	1,018	1,138	1,707	1,138	1,707
68mil (14ga), 50ksi Stud	943	1,078	1,018	1,018	1,434	1,742	1,434	1,903
97mil (12ga), 50ksi Stud	943	1,078	1,018	1,018	1,434	1,742	1,434	1,903
<b>Max Allowable Clip Load</b>	<b>943</b>	<b>1,078</b>	<b>1,018</b>		<b>1,742</b>		<b>1,903</b>	

**\*\*DriftClip DSLS Allowable Load tables and important notes continued on next page.**

DriftClip® DSLS, Recommended Allowable Load (lbs): F2 - Fastener Pattern 2								
Screw Patterns with #12 Screws	DSLS600-20		DSLS800-12		DSLS800-15		DSLS800-20	
	w/2 Screws	w/3 Screws	w/2 Screws	w/3 Screws	w/2 Screws	w/3 Screws	w/2 Screws	w/3 Screws
33mil (20ga), 33ksi Stud	376	564	376	564	376	564	376	564
33mil (20ga), 50ksi Stud	544	816	544	816	544	816	544	816
43mil (18ga), 33ksi Stud	560	840	560	840	560	840	560	840
43mil (18ga), 50ksi Stud	810	1,215	810	1,158	810	1,198	810	1,215
54mil (16ga), 33ksi Stud	788	1,182	788	1,158	788	1,182	788	1,182
54mil (16ga), 50ksi Stud	1,138	1,663	1,138	1,158	1,138	1,198	1,138	1,246
68mil (14ga), 50ksi Stud	1,434	1,663	1,158	1,158	1,198	1,198	1,246	1,246
97mil (12ga), 50ksi Stud	1,434	1,663	1,158	1,158	1,198	1,198	1,246	1,246
<b>Max Allowable Clip Load</b>	<b>1,663</b>		<b>1,158</b>		<b>1,198</b>		<b>1,246</b>	

**Notes:**

1. Design loads are for attachment of DriftClip DSLS to stud only.
2. Allowable loads have not been increased for wind, seismic, or other factors.
3. DriftClip DSLS allows up to 2" of vertical deflection (1" up and 1" down), and 2" of lateral drift (1" left and 1" right) in plane. Deflection requirements greater than 2" of lateral drift are available.
4. #12 screws are provided for each step bushing attachment to studs. Load requirements do not always require the use of a third screw.
5. Attachment of structure to be engineered by others. As a design reference for the structure attachment, reference AISI S100 or screw manufacturers published data for allowable loads for screw fasteners of 1/4"-20 size with various plate thicknesses.
6. One row of bridging is recommended at a maximum distance of 18" from DriftClip to resist torsional effects.
7. Return lip added for clips longer than 20".
8. For LRFD strengths contact TSN technical services.

**Load Direction**



**Nomenclature**

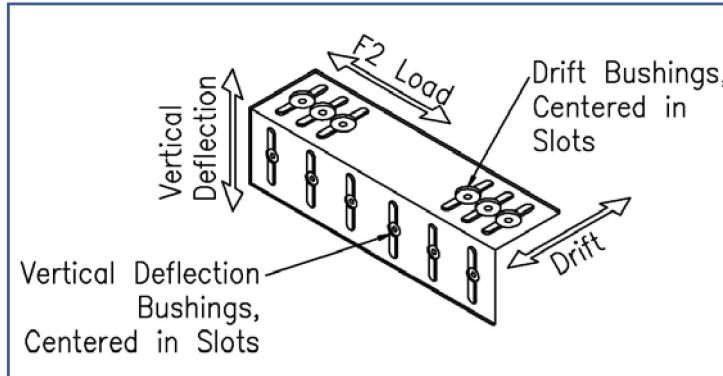
DriftClip DSLS is classified by multiplying stud depth by 100, followed by length.

**Example:** 6" stud depth, 15" length

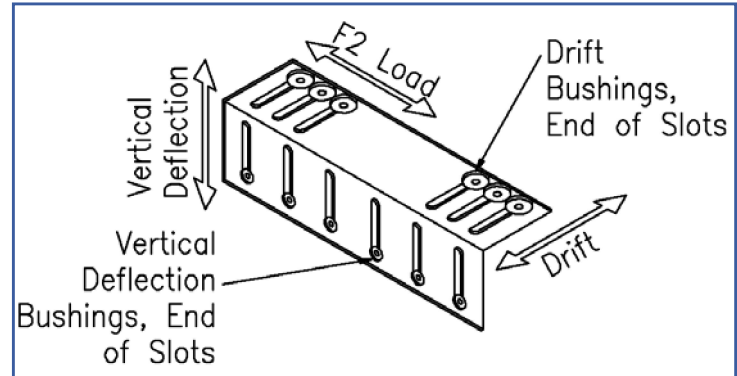
**Designate:** DriftClip® DSLS600-15

\* If more than 2" lateral drift is required, contact TSN engineering.

**Fastener Patterns**



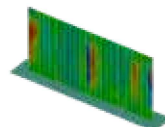
**Fastener Pattern 1** replicates a condition of out-of-plane wind or seismic force with no vertical live load deflection or in-plane drift.



**Fastener Pattern 2** replicates a condition of out-of-plane wind or seismic force with full vertical live load deflection and full in-plane drift.



DriftClip DSLS600-12 & DSLS600-15  
ICC-ESR-2049  
www.icc-es.org



DriftClip DSLS Series  
Blast and Seismic Design Data  
www.steelnetwork.com

\*\* For more information or to review a copy of each of these reports, please visit our website at <http://www.steelnetwork.com/light-steel-framing-design-resources>