

# The Steel Network, Inc.

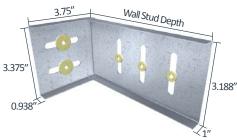
# **DriftClip® DSLB** Bypass Slab

#### **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 DSLB 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.





US Patent #6,612,087

#### DriftClip DSLB Allowable (Unfactored) Loads<sup>1</sup>

DriftClip® DSLB362, 600 & 800 Recommended Allowable Load (lbs): F2						
Stud		Fastener Pattern 1		Fastener Pattern 2		
Thickness Mils (ga)	Yield Strength (ksi)	w/2 #12 Screws	w/3 #12 Screws*	w/2 #12 Screws	w/3 #12 Screws*	
33 (20)	33	377	565	377	565	
33 (20)	50	544	817	544	572	
43 (18)	33	561	841	561	572	
43 (18)	50	810	917	572	572	
54 (16)	33	917	917	572	572	
54 (16)	50	917	917	572	572	
68 (14)	50	917	917	572	572	
97 (12)	50	917	917	572	572	
Max Allowable Clip Load		917		572		

### **Allowable Screw Pullout**

**Load Direction** 

Section Thickness	Pullout 1/4" - 20 Screws* (lbs)			
0.0566"	206			
0.0713"	260			
0.1017"	500			
1/8"	765			
3/16"	1,045			
1/4"	1,215			
5/16"	1,275			

\* Limited by the allowable F2 loads shown in the table on the left.

# Notes:

- Design loads are for attachment of DriftClip DSLB to stud only.
- Attachment to structure engineered by others. As a design reference for the structure attachment, follow ICC-ESR-3332 for allowable loads for screw fasteners of 1/4" - 20 size with various plate thickness.
- Allowable loads have not been increased for wind, seismic, or other factors.
- #12 screws are provided with each step bushing for attachment to stud. Load requirements don't always justify use of a third screw.
- DriftClip DSLB allows up to 2" of vertical deflection (1"up and 1" down), and 2" lateral drift (1" left and 1" right in plane). Deflection requirements greater than 2" lateral drift are available.
- One row of bridging is recommended at a maximum distance of 12" from DriftClip to resist torsional effects.
- <sup>1</sup> For LRFD Design Strengths refer to ICC-ESR-2049.
- \* Three screws are not applicable to DriftClip DSLB362.

## Nomenclature

DriftClip DSLB is classified by multiplying stud depth by 100.

**Example:** 6" stud depth **Designate:** DriftClip® DSLB600

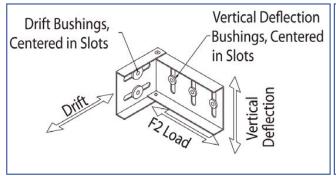
\* If more than 2" lateral drift is required, contact TSN engineering.

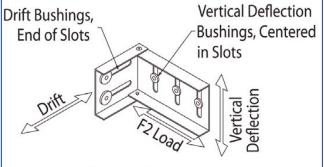
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<sup>\*\*</sup> One row of bridging is recommended at a maximum distance of 12" from DriftClip to resist torsional effects.

#### **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 or without full vertical live load deflection and full in-plane drift.





