

## PRODUCT APPLICATION

VertiTrack® VTX deflection track connects exterior curtain wall studs at head of wall to the building frame while allowing for vertical deflection of the structure of up to 1½" (¾" up and ¾" down). A VertiClip® SL is pre-assembled at 16" o.c. or 24" o.c. (or any pre-required stud spacing). VertiClip's unique design provides both an anti-friction and anti-seizure connection between the clip and the stud web surface thereby preventing a transfer of vertical forces into curtain wall framing, which is not engineered to support axial loads. Use of VertiTrack VTX over friction-fit track assemblies minimizes liability through the utilization of positive mechanical attachments to the web of the stud.

## MATERIAL COMPOSITION

Track and clip material: ASTM A653/A653M, Grade 50 (340), 50ksi (340 MPa) minimum yield strength, 65ksi (450 MPa) minimum tensile strength, (clip); 33ksi (230MPa) minimum yield strength, 45ksi (310 MPa) minimum tensile strength (track), G-90 (Z275) hot-dipped galvanized coating (clip); G-60 (Z180) hot-dipped galvanized coating (track). Track leg length = 1½". Track material thickness = 43mil (18 gauge, 0.0451" design thickness).

The attachment of VertiClip to the primary structure may be made with a PAF and is dependent upon the base material (steel or concrete) and the design configuration.

Note:

- ◆ Fasten within ¾" from the angle heel (centerline of the 1½" leg) to minimize eccentric load transfer.
- ◆ Fasten through each VertiClip SL to structure.

VertiTrack VTX series is designed to support horizontal loads and should not be used in axial-load-bearing wall construction.

## VERTITRACK VTX NOMENCLATURE

VertiTrack is manufactured in 12 ft. lengths. VertiTrack is designated by type (VTX), followed by stud depth in inches multiplied by 100 and stud spacing.

Example: 6" deep stud, 16" on center  
Designate: VertiTrack VTX600-16.

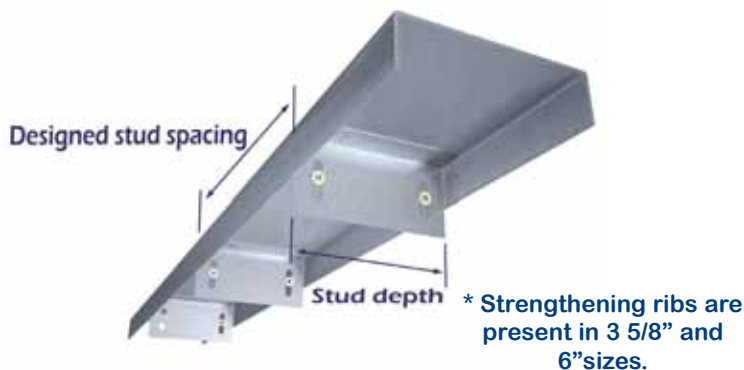
## VERTITRACK VTX INSTALLATION



Attach VertiTrack VTX to deck with an engineered connection through each VertiClip SL.



Connect stud to VertiTrack with provided screws through Step Bushings.



## VERTITRACK VTX VALUE

- ◆ Load-rated positive mechanical attachment at each stud
- ◆ Eliminates friction-held assemblies
- ◆ Clip utilizes only mill-certified, 50ksi steel
- ◆ **Step Bushings pre-installed for accurate placement**
- ◆ **Load rated screws provided for each VertiClip**
- ◆ Meets all building code criteria
- ◆ Adaptable for multiple configurations
- ◆ **Top of wall bridging or strapping is eliminated**
- ◆ **Track lightweight for easy handling**
- ◆ Utilize clips for wall layout
- ◆ Eliminates temporary screws

## QUANTITY / ORDER INFORMATION

Designation	Lbs / Piece	Qty/Skid (Pieces)	Qty/Skid (Feet)	Lbs / Skid
VTX362-16	15.570	242	2904	3768
VTX362-24	14.460	242	2904	3500
VTX400-16	16.260	200	2400	3252
VTX400-24	15.120	200	2400	3024
VTX600-16	21.510	98	1176	2108
VTX600-24	19.860	98	1176	1946
VTX800-16	27.660	100	1200	2766
VTX800-24	25.200	100	1200	2520

## ALLOWABLE LOADS

VertiTrack VTX allowable loads are shown on page 12 under Allowable Loads for VertiClip SL.

## PRODUCT APPLICATION

VertiClip® SL connects the exterior curtain wall studs at head of wall to the building frame while allowing for vertical deflection of the structure up to 1½" (¾" up and down). VertiClip's unique design provides both an anti-friction and anti-seizure connection between the clip and the stud web surface thereby preventing a transfer of vertical forces into curtain wall framing, which is not engineered to support axial loads. Use of VertiClip SL over friction-fit track assemblies helps protect liability through the utilization of positive mechanical attachments to the web of the stud. VertiClip SL is a component of VertiTrack® VTX, our pre-assembled deflection track (see page 14). Allowable loads are based on use of two #12 screws for attachment to stud (provided by TSN).

## MATERIAL COMPOSITION

ASTM A653/A653M, Grade 50 (340), 50ksi (340 MPa) minimum yield strength, 65ksi (450 MPa) minimum tensile strength, G-90 (Z275) hot-dipped galvanized coating. Material thickness = 68mil (14 gauge, 0.0713" design thickness).

The attachment of VertiClip to the primary structure may be made with PAF or weld and is dependent upon the base material (steel or concrete) and the design configuration.

**Allowable load tables incorporate eccentric loading of fasteners. Values with welded connection may increase.**

Note:

- ◆ Fasten within ¾" from the angle heel (centerline of the 1½" leg) to minimize eccentric load transfer.
- ◆ Guide holes for attachment to structure are .172" in diameter, and are standard for SL362, and SL600.
- ◆ **Deflection requirements greater than ¾" (up and down) are available.**

VertiClip SL series is designed to support horizontal loads and should not be used in axial-load-bearing wall construction.

## VERTICLIP SL NOMENCLATURE

To designate the proper clip on drawings, multiply stud depth by 100. VertiClip SL is sized to match stud depth.

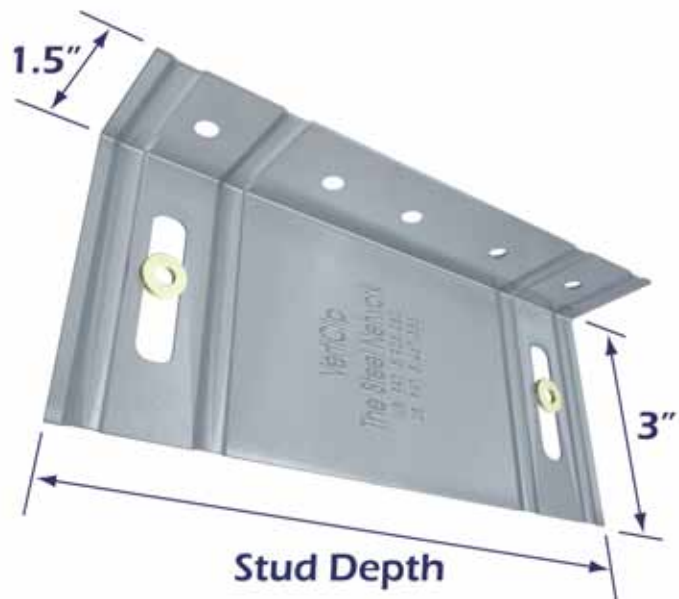
Example: 6" stud.  
Designate SL600.



An ICC-ES Evaluation Report for VertiClip SL362, 600, & 800 is available. Refer to ICC-ESR-1903 at [www.icc-es.org](http://www.icc-es.org) or at [www.steelnetwork.com](http://www.steelnetwork.com).



US Patents #5,467,566 & #5,906,080



\* Strengthening ribs and guide holes are present in 3 5/8" and 6" sizes.

## VERTICLIP SL INSTALLATION



Attach 20ga standard leg track to structure. Track will allow for alignment and closure.



Fasten SL to top track at designed stud spacing with engineered fastener.



Attach SL to wall stud with provided screws through Step Bushings.



## QUALITY FEATURES

- ◆ Load-rated positive mechanical attachment at each stud
- ◆ Eliminates friction-held assemblies
- ◆ Utilizes only mill-certified, 50ksi steel
- ◆ **Step Bushings pre-installed for accurate placement**
- ◆ **Load rated screws provided for each VertiClip**
- ◆ Meets all building code criteria
- ◆ Adaptable for multiple configurations

## LABOR BENEFITS

- ◆ Top of wall bridging or strapping is eliminated
- ◆ Top track lightweight for easy handling (not a structural element, may be 20ga standard leg - Deep-Leg Track is not required)
- ◆ Utilize clips for wall layout
- ◆ Eliminates temporary screws

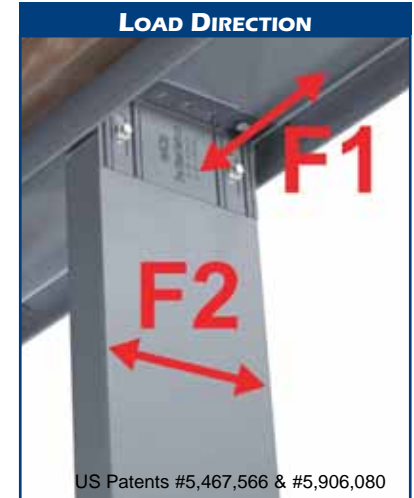
## ALLOWABLE (UNFACTORED) LOADS<sup>1</sup>

VertiClip Series	Load Direction	Stud Thickness Mils (ga)	Fy (yield) Stud (ksi)	SL362 F2 w/ 2 #12 screws (kips)	SL400 F2 w/ 2 #12 screws (kips)	SL400 F2 w/ 3 #12 screws (kips)	SL600 F2 w/ 2 #12 screws (kips)	SL600 F2 w/ 3 #12 screws (kips)
SL (Clip is 14ga, 68mils)	F2	33 (20)	33	0.377	0.377	0.565	0.377	0.565
		33 (20)	50	0.544	0.544	0.817	0.544	0.817
		43 (18)	33	0.561	0.561	0.841	0.561	0.841
		43 (18)	50	0.790	0.810	1.136	0.810	1.215
		54 (16)	33	0.789	0.789	1.136	0.789	1.183
		54 (16)	50	0.790	1.136	1.136	1.139	1.680
		68 (14)	50	0.790	1.136	1.136	1.610	1.680
		97 (12)	50	0.790	1.136	1.136	1.680	1.680

VertiClip Series	Load Direction	Stud Thickness Mils (ga)	Fy (yield) Stud (ksi)	SL362 F1 w/ 2 #12 screws (kips)	SL400 F1 w/ 2 #12 screws (kips)	SL600 F1 w/ 2 #12 screws (kips)	SL600 F1 w/ 3 #12 screws (kips)
SL (Clip is 14ga, 68mils)	F1	33 (20)	33	0.190	0.190	0.190	0.285
		33 (20)	50	0.248	0.199	0.275	0.367
		43 (18)	33	0.248	0.199	0.248	0.367
		43 (18)	50	0.248	0.199	0.359	0.367
		54 (16)	33	0.248	0.199	0.312	0.367
		54 (16)	50	0.248	0.199	0.367	0.367
		68 (14)	50	0.248	0.199	0.367	0.367
		97 (12)	50	0.248	0.199	0.367	0.367

VertiClip Series	Load Direction	Stud Thickness Mils (ga)	Fy (yield) Stud (ksi)	SL800 F2 w/ 2 #12 screws (kips)	SL800 F2 w/ 3 #12 screws (kips)	SL1000 F2 w/ 2 #12 screws (kips)	SL1000 F2 w/ 3 #12 screws (kips)	SL1200 F2 w/ 2 #12 screws (kips)	SL1200 F2 w/ 3 #12 screws (kips)
SL (Clip is 14ga, 68mils)	F2	33 (20)	33	0.377	0.565	0.377	0.565	0.377	0.565
		33 (20)	50	0.544	0.817	0.544	0.817	0.544	0.817
		43 (18)	33	0.561	0.841	0.561	0.841	0.561	0.841
		43 (18)	50	0.810	1.215	0.810	1.215	0.810	1.215
		54 (16)	33	0.789	1.183	0.789	1.183	0.789	1.183
		54 (16)	50	1.139	1.709	1.139	1.577	1.139	1.709
		68 (14)	50	1.610	1.870	1.577	1.577	1.610	1.791
		97 (12)	50	1.698	1.870	1.577	1.577	1.698	1.791
VertiClip Series	Load Direction	Stud Thickness Mils (ga)	Fy (yield) Stud (ksi)	SL800 F1 w/ 2 #12 screws (kips)	SL800 F1 w/ 3 #12 screws (kips)	SL1000 F1 w/ 2 #12 screws (kips)	SL1000 F1 w/ 3 #12 screws (kips)	SL1200 F1 w/ 2 #12 screws (kips)	SL1200 F1 w/ 3 #12 screws (kips)
SL (Clip is 14ga, 68mils)	F1	33 (20)	33	0.190	0.285	0.190	0.285	0.190	0.285
		33 (20)	50	0.275	0.362	0.275	0.413	0.275	0.381
		43 (18)	33	0.248	0.362	0.248	0.372	0.248	0.372
		43 (18)	50	0.359	0.362	0.359	0.414	0.359	0.381
		54 (16)	33	0.312	0.362	0.312	0.414	0.312	0.381
		54 (16)	50	0.362	0.362	0.414	0.414	0.381	0.381
		68 (14)	50	0.362	0.362	0.414	0.414	0.381	0.381
		97 (12)	50	0.362	0.362	0.414	0.414	0.381	0.381

- ◆ Allowable loads have not been increased for wind, seismic, or other factors.
  - ◆ Two #12 screws are provided with each VertiClip SL.
  - ◆ If loads justify use of a third screw, TSN will provide 3 slots and 3 screws with each clip.
- <sup>1</sup> For LRFD Design Strengths refer to ICC-ESR-1903 (p23).



## QUANTITY / ORDER INFORMATION

Designation	Qty/Box	Lbs/Box	Pcs/Skid	Lbs/Skid
SL362	100	37	4500	1665
SL400	100	38	4500	1710
SL600	100	55	4500	2475
SL800	50	41	2250	1845
SL1000	50	40	2250	1800
SL1200	50	57	2250	2565



An ICC-ES Evaluation Report for VertiClips SL362, 600, & 800 is available. Refer to ICC-ESR-1903 at [www.icc-es.org](http://www.icc-es.org) or at [www.steelnetwork.com](http://www.steelnetwork.com).