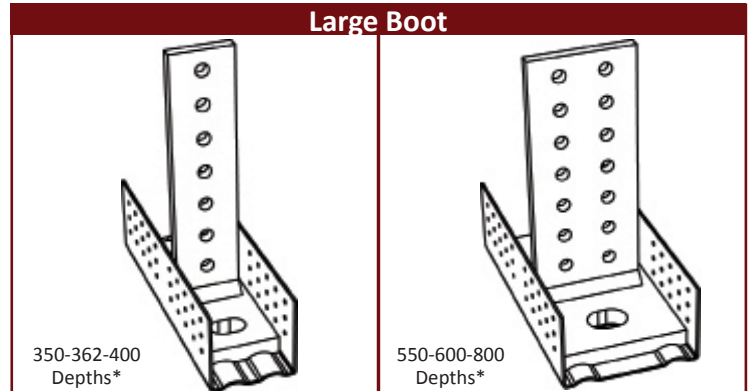
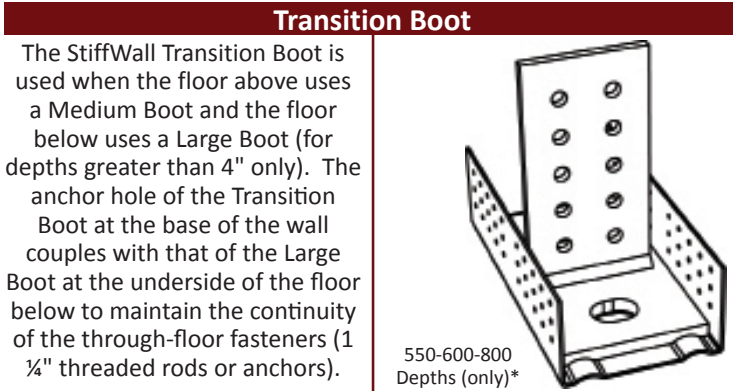
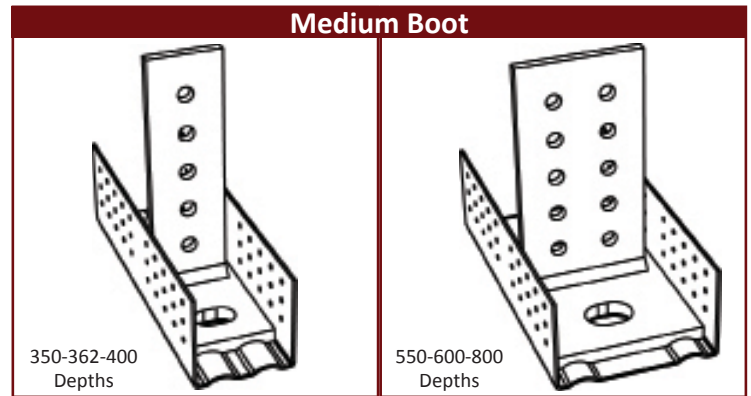
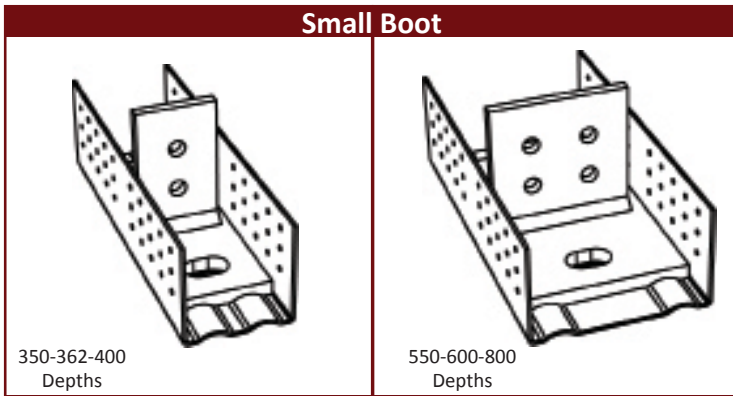
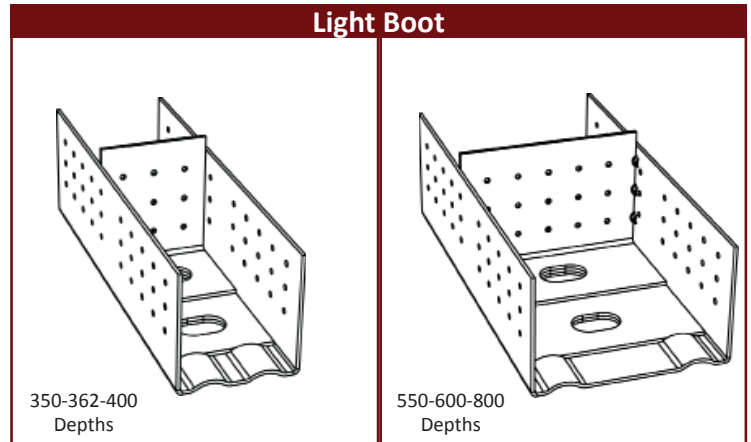
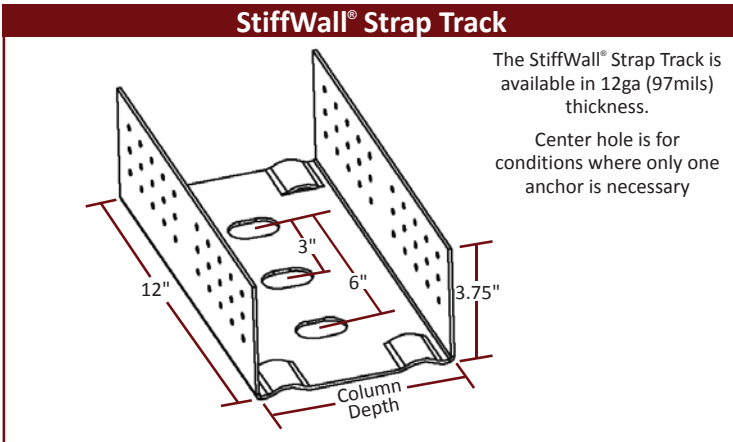


Boot Dimensions And Thickness

StiffWall® Boots are designed to provide the optimal cost-effective solution for shear wall connections. Five configurations are available to meet project requirements (Light, Small, Medium, Transition and Large). StiffWall Boots are sized to fit inside standard track and are available for 3.5", 3.625", 4", 5.5", 6" and 8" Depths. **During installation of StiffWall Boots, standard or plate washer shall be used with a size sufficient to cover the Boots' slots after installation.** The Steel Network will determine the actual bearing height the StiffWall Columns, which are delivered to the job site with Boots pre-attached at the top and bottom for fast installation.



* Boots less than or equal to 4" contain guide holes for 7/8" anchors. Boots greater than 4" contain guide holes for 1-1/4" anchors.

Subtract Boot Thickness to Determine Column Bearing Height

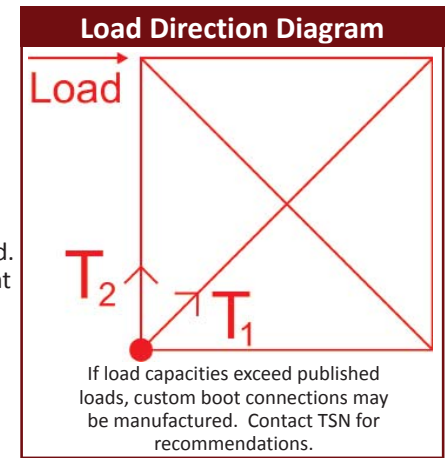
The Steel Network will determine the actual bearing height of a StiffWall Column by subtracting the thickness of the StiffWall Boot and Strap Track elements on which it is bearing. For each boot, the StiffWall Strap Track is 97mils thick. The dimensions of various boot elements are shown in the table below. Contact TSN for design recommendations or assistance with any light steel framing technical issue.

Boot Type	Strap Track Thickness	Base Plate Thickness	Additional Base Plate Thickness	Total Thickness of Two Boots ¹
Light	0.1017"	0	0.1242"	0.5"
Small, Medium, Transition	0.1017"	0.5"	0	1.25"
Large	0.1017"	0.75"	0	1.75"

¹ Total thickness rounded to nearest 1/32", with 1/32" added for installation tolerance.

Important Notes

1. Allowable loads are based on analysis of loads and allowable stresses set by AISI S100-07 and AISC 2005 Spec.
2. Straps tension T1 is the summation of tension forces in the the two diagonal straps.
3. Load paths for straps tension and column uplift are independent in the boot connection and allowable loads T1 and T2 can be combined for the same boot.
4. Check combined tension and shear in anchor bolts due to applied T1 and T2 values as per AISC 2005 Specification, Sec. J3.7.
5. Allowable loads for wall aspect ratio other than listed can be interpolated, but not extrapolated.
6. Material Designation for cold-formed steel parts is ASTM A 1003/A 1003M, ST50H or equivalent (Min. $F_y = 50$ ksi, Min. $F_u = 65$ ksi).
7. Material Designation for structural steel parts is ASTM A 572/A 572M, Grade 50 or equivalent (Min. $F_y = 50$ ksi, Min. $F_u = 65$ ksi).
8. Fillet Weld Designation is E70XX Metal Arc or equivalent. Thickness as specified.
9. For seismic design with coefficient $R > 3$, consider connection special seismic requirements in AISI-Lateral Standard 2004.



StiffWall® Boot Capacity (kips)							
Wall		Light		Small / Medium / Transition		Large	
Width (in)	Aspect Ratio	Straps Tension	Column Uplift	Straps Tension	Column Uplift	Straps Tension	Column Uplift
	Vertical: Horizontal	T1	T2	T1	T2	T1	T2
3.5	0.6:1 (30.96 deg.)	10.88	2.22	18.6	8.65	18.6	19.46
	1:1 (45 deg.)	7.92	2.22	22.08	8.65	22.08	19.46
	2:1 (63.5 deg.)	6.26	2.22	26.81	8.65	29.01	19.46
3.625	0.6:1 (30.96 deg.)	10.51	2.24	18.6	8.98	18.6	20.21
	1:1 (45 deg.)	7.65	2.24	22.08	8.98	22.08	20.21
	2:1 (63.5 deg.)	6.04	2.24	25.88	8.98	29.01	20.21
4	0.6:1 (30.96 deg.)	9.52	2.3	18.6	9.98	18.6	22.46
	1:1 (45 deg.)	6.93	2.3	22.08	9.98	22.08	22.46
	2:1 (63.5 deg.)	5.48	2.3	23.46	9.98	29.01	22.46
5.5	0.6:1 (30.96 deg.)	6.93	2.49	18.6	13.98	21.48	35.76
	1:1 (45 deg.)	5.04	2.49	21.58	13.98	25.34	35.76
	2:1 (63.5 deg.)	3.98	2.49	17.06	13.98	32.23	35.76
6	0.6:1 (30.96 deg.)	6.35	2.55	18.6	15.32	21.48	39.16
	1:1 (45 deg.)	4.62	2.55	19.78	15.32	25.34	39.16
	2:1 (63.5 deg.)	3.65	2.55	15.64	15.32	32.23	39.16
8	0.6:1 (30.96 deg.)	4.76	2.75	18.6	20.65	21.48	52.8
	1:1 (45 deg.)	3.46	2.75	14.84	20.65	25.34	52.8
	2:1 (63.5 deg.)	2.74	2.75	11.73	20.65	25.81	52.8

Each boot kit contains:



* A Transition Boot Kit contains 2 Medium Base Plates, 2 Transition Base Plates, 4 Strap Tracks, and required A325 Column Bolts.

** One bolt provided per hole into stud.

Boot Kits

If field conditions preclude the use of pre-installed Column/Boot Assemblies, StiffWall Boots may be sold as "kits," not individual boots (there are four (4) boots per kit).

- If the project contains 10 StiffWall shear walls, order 10 Boot Kits (not 40 Boot Kits).
- There are 5 different Boot types available: "Light," "Small", "Medium", "Transition", and "Large"