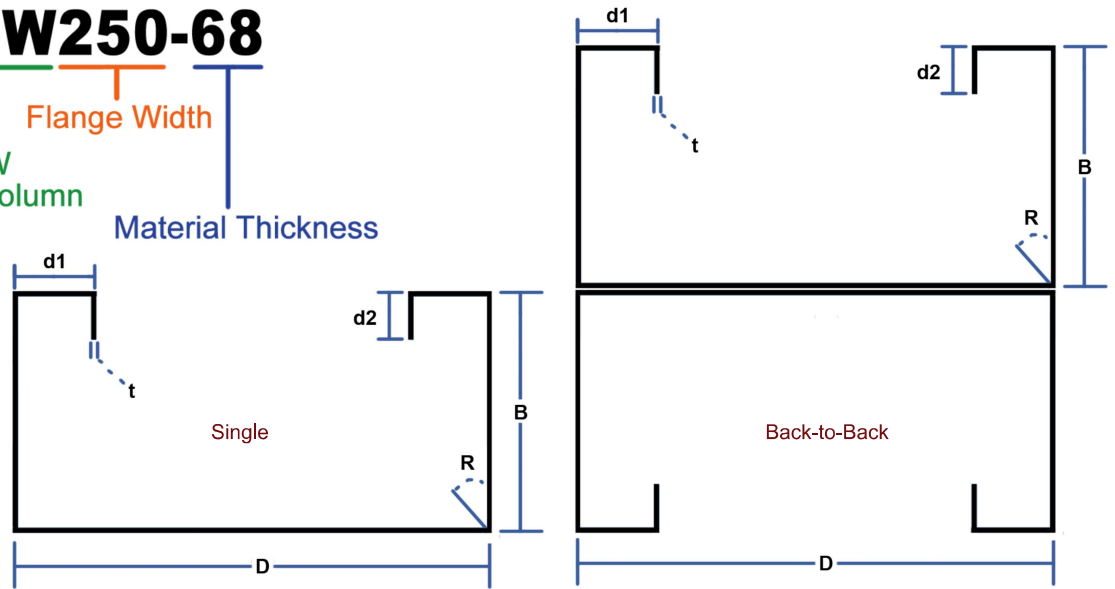


Shear Wall Systems Single & Back-to-Back StiffWall® Column Product Profile

600C/STW250-68

Overall Depth
 C/STW StiffWall® Column
 Flange Width
 Material Thickness



Material Properties

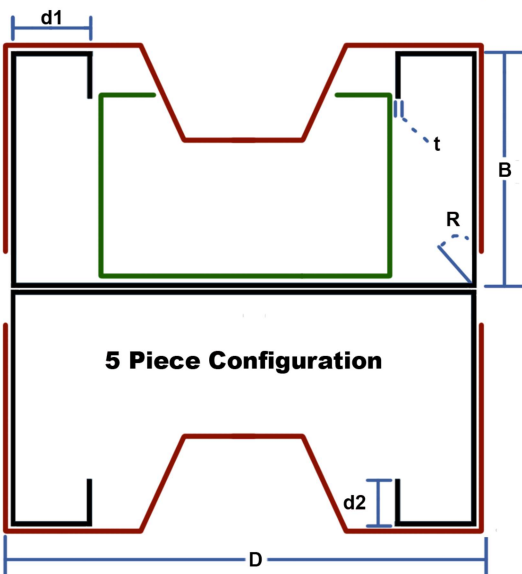
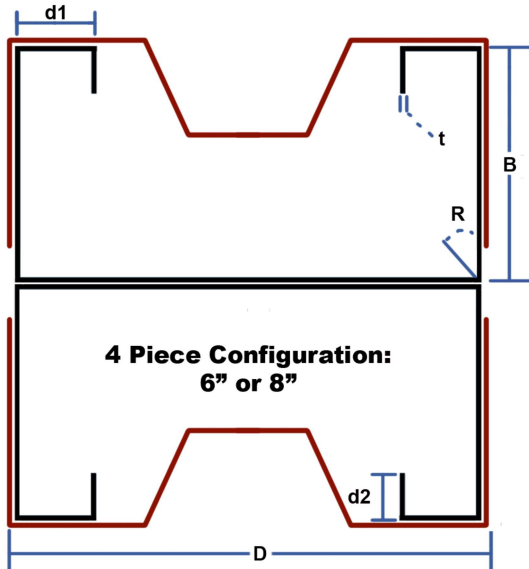
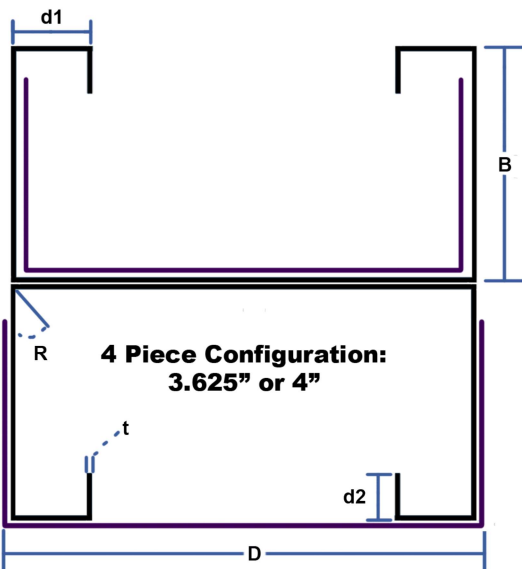
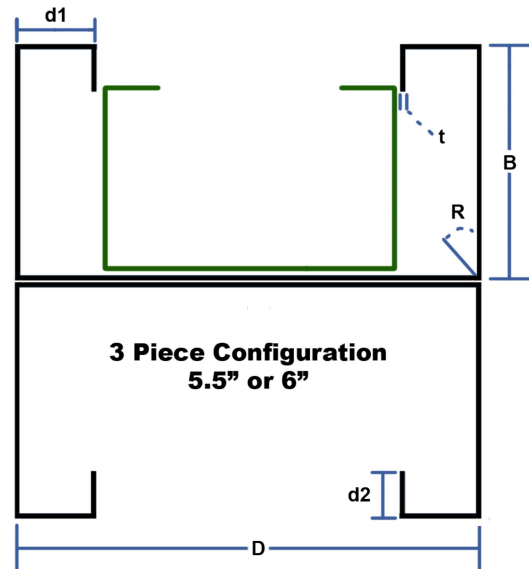
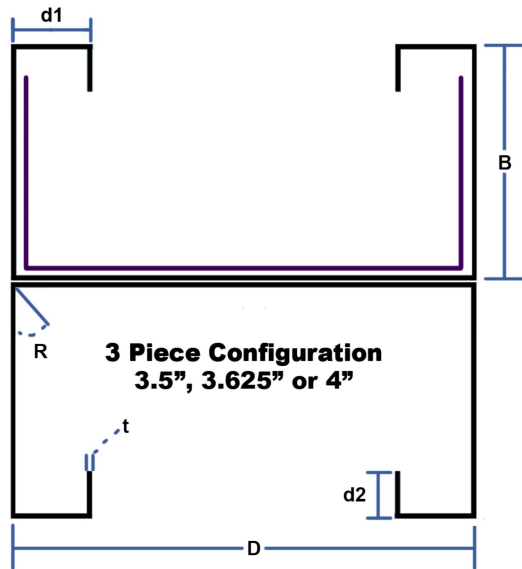
ASTM A1003/A1003M
 Structural Grade 50 (340)
 Type H, ST50H (ST340H):
 50ksi (340MPa) minimum
 yield strength, 65ksi
 (450MPa) minimum tensile
 strength with ASTM A653/
 A653M G60 (Z180) hot
 dipped galvanized coating.

Single & Back-to-Back StiffWall® Column Product Profile							
Section (All 50 ksi)	Overall Depth	Flange Width	Return Lip 1	Return Lip 2	Inside Bend Radius	Design Thickness	Unit Weight (lbs/ft)
	D (in)	B (in)	d1 (in)	d2 (in)	R (in)	t (in)	
350C/STW200-33	3.139	2.000	0.5892	0.5	0.105	0.0346	1.035
350C/STW200-43	3.139	2.000	0.6102	0.5	0.105	0.0451	1.344
350C/STW200-54	3.139	2.000	0.6332	0.5	0.105	0.0566	1.680
350C/STW200-68	3.139	2.000	0.6626	0.5	0.105	0.0713	2.104
350C/STW200-97	3.139	2.000	0.7234	0.5	0.105	0.1017	2.967
350C/STW200-118	3.139	2.000	0.7684	0.5	0.105	0.1242	3.587
362C/STW200-33	3.264	2.000	0.5892	0.5	0.105	0.0346	1.050
362C/STW200-43	3.264	2.000	0.6102	0.5	0.105	0.0451	1.364
362C/STW200-54	3.264	2.000	0.6332	0.5	0.105	0.0566	1.704
362C/STW200-68	3.264	2.000	0.6626	0.5	0.105	0.0713	2.135
362C/STW200-97	3.264	2.000	0.7234	0.5	0.105	0.1017	3.010
362C/STW200-118	3.264	2.000	0.7684	0.5	0.105	0.1242	3.639
400C/STW200-33	3.639	2.000	0.5892	0.5	0.105	0.0346	1.094
400C/STW200-43	3.639	2.000	0.6102	0.5	0.105	0.0451	1.421
400C/STW200-54	3.639	2.000	0.6332	0.5	0.105	0.0566	1.776
400C/STW200-68	3.639	2.000	0.6626	0.5	0.105	0.0713	2.226
400C/STW200-97	3.639	2.000	0.7234	0.5	0.105	0.1017	3.140
400C/STW200-118	3.639	2.000	0.7684	0.5	0.105	0.1242	3.798
550C/STW250-43	5.139	2.500	0.6102	0.5	0.105	0.0451	1.805
550C/STW250-54	5.139	2.500	0.6332	0.5	0.105	0.0566	2.258
550C/STW250-68	5.139	2.500	0.6626	0.5	0.105	0.0713	2.832
550C/STW250-97	5.139	2.500	0.7234	0.5	0.105	0.1017	4.005
550C/STW250-118	5.139	2.500	0.7684	0.5	0.105	0.1242	4.853
600C/STW250-43	5.639	2.500	0.6102	0.5	0.105	0.0451	1.882
600C/STW250-54	5.639	2.500	0.6332	0.5	0.105	0.0566	2.354
600C/STW250-68	5.639	2.500	0.6626	0.5	0.105	0.0713	2.954
600C/STW250-97	5.639	2.500	0.7234	0.5	0.105	0.1017	4.178
600C/STW250-118	5.639	2.500	0.7684	0.5	0.105	0.1242	5.064
800C/STW250-43	7.639	2.500	0.6102	0.5	0.105	0.0451	2.189
800C/STW250-54	7.639	2.500	0.6332	0.5	0.105	0.0566	2.739
800C/STW250-68	7.639	2.500	0.6626	0.5	0.105	0.0713	3.439
800C/STW250-97	7.639	2.500	0.7234	0.5	0.105	0.1017	4.871
800C/STW250-118	7.639	2.500	0.7684	0.5	0.105	0.1242	5.908

Standard (S) section studs will not fit in the StiffWall® Boot and should not be considered as a substitute for the StiffWall Column.

Material Properties

ASTM A1003/A1003M Structural Grade 50 (340) Type H, ST50H (ST340H): 50ksi (340MPa) minimum yield strength, 65ksi (450MPa) minimum tensile strength with ASTM A653/A653M G60 (Z180) hot dipped galvanized coating.



StiffWall® Column (C/STW)

- Back-to-Back (C/STW)**
- Standard Stud (S)**
- SigmaPan (SGP)**
- Track (T)**

Built-Up StiffWall® Column Product Profile							
Depth (in)	Section (All 50 ksi)	Components	Overall Depth	Flange Width	Return Lip 1	Design Thickness	Unit Weight
			D	B	d1	t	(lbs/ft)
			(in)	(in)	(in)	(in)	
350	(3P) 350C/STW200-97	(2) 350C/STW200-97	3.139	2.000	0.7234	0.1017	7.793
		275T150-97	2.750	1.500	N/A	0.1017	
	(3P) 350C/STW200-118	(2) 350C/STW200-118	3.139	2.000	0.7684	0.1242	9.043
		275T150-97	2.750	1.500	N/A	0.1017	
362	(3P) 362C/STW200-97	(2) 362C/STW200-97	3.264	2.000	0.7234	0.1017	7.879
		275T150-97	2.750	1.500	N/A	0.1017	
	(3P) 362C/STW200-118	(2) 362C/STW200-118	3.264	2.000	0.7684	0.1242	9.149
		275T150-97	2.750	1.500	N/A	0.1017	
	(4P) 362C/STW200-97	(2) 362*C/STW200-97	3.029	2.000	0.7234	0.1017	9.840
		275T150-97	2.750	1.500	N/A	0.1017	
		326T162-97	3.264	1.625	N/A	0.1017	
	(4P) 362C/STW200-118	(2) 362*C/STW200-118	3.029	2.000	0.7684	0.1242	11.073
		275T150-97	2.750	1.500	N/A	0.1017	
		326T162-97	3.264	1.625	N/A	0.1017	
400	(3P) 400C/STW200-97	(2) 400C/STW200-97	3.639	2.000	0.7234	0.1017	8.139
		275T150-97	2.750	1.500	N/A	0.1017	
	(3P) 400C/STW200-118	(2) 400C/STW200-118	3.639	2.000	0.7684	0.1242	9.466
		275T150-97	2.750	1.500	N/A	0.1017	
	(4P) 400C/STW200-97	(2) 400*C/STW200-97	3.404	2.000	0.7234	0.1017	10.229
		275T150-97	2.750	1.500	N/A	0.1017	
		364T162-97	3.639	1.625	N/A	0.1017	
	(4P) 400C/STW200-118	(2) 400*C/STW200-118	3.404	2.000	0.7684	0.1242	11.520
275T150-97		2.750	1.500	N/A	0.1017		
364T162-97		3.639	1.625	N/A	0.1017		
550	(3P) 550C/STW250-97	(2) 550C/STW250-97	5.139	2.500	0.7234	0.1017	10.604
		400S162-97	4.000	1.625	0.5000	0.1017	
	(3P) 550C/STW250-118	(2) 550C/STW250-118	5.139	2.500	0.7684	0.1242	12.313
		400S162-97	4.000	1.625	0.5000	0.1017	

* Overall Depth (D) varies from Single and Back-to-Back sections

Built-Up StiffWall® Column Product Profile

Built-Up StiffWall® Column Product Profile							
Depth (in)	Section (All 50 ksi)	Components	Overall Depth	Flange Width	Return Lip 1	Design Thickness	Unit Weight
			D	B	d1	t	(lbs/ft)
			(in)	(in)	(in)	(in)	
600	(3P) 600C/STW250-97	(2) 600C/STW250-97	5.639	2.500	0.7234	0.1017	10.950
		400S162-97	4.000	1.625	0.5000	0.1017	
	(3P) 600C/STW250-118	(2) 600C/STW250-118	5.639	2.500	0.7684	0.1242	12.736
		400S162-97	4.000	1.625	0.5000	0.1017	
	(4P) 600C/STW250-97	(2) 600*C/STW250-97	5.404	2.500	0.7234	0.1017	15.703
		(2) 564SGP225-97	5.639	2.250	N/A	0.1017	
	(4P) 600C/STW250-118	(2) 600*C/STW250-118	5.404	2.500	0.7684	0.1242	17.454
		(2) 564SGP225-97	5.639	2.250	N/A	0.1017	
	(5P) 600C/STW250-97	(2) 600*C/STW250-97	5.404	2.500	0.7234	0.1017	18.297
		(2) 564SGP225-97	5.639	2.250	N/A	0.1017	
		400S162-97	4.000	1.625	0.5000	0.1017	
	(5P) 600C/STW250-118	(2) 600*C/STW250-118	5.404	2.500	0.7684	0.1242	20.047
(2) 564SGP225-97		5.639	2.250	N/A	0.1017		
400S162-97		4.000	1.625	0.5000	0.1017		
800	(3P) 800C/STW250-97	(2) 800C/STW250-97	7.639	2.500	0.7234	0.1017	13.026
		600S200-97	6.000	2.000	0.6250	0.1017	
	(3P) 800C/STW250-118	(2) 800C/STW250-118	7.639	2.500	0.7684	0.1242	15.119
		600S200-97	6.000	2.000	0.6250	0.1017	
	(4P) 800C/STW250-97	(2) 800*C/STW250-97	7.404	2.500	0.7234	0.1017	18.472
		(2) 764SGP225-97	7.639	2.250	N/A	0.1017	
	(4P) 800C/STW250-118	(2) 800*C/STW250-118	7.404	2.500	0.7684	0.1242	20.529
		(2) 764SGP225-97	7.639	2.250	N/A	0.1017	
	(5P) 800C/STW250-97	(2) 800*C/STW250-97	7.404	2.500	0.7234	0.1017	21.758
		(2) 764SGP225-97	7.639	2.250	N/A	0.1017	
		600S162-97	6.000	1.625	0.5000	0.1017	
	(5P) 800C/STW250-118	(2) 800*C/STW250-118	7.404	2.500	0.7684	0.1242	23.814
(2) 764SGP225-97		7.639	2.250	N/A	0.1017		
600S162-97		6.000	1.625	0.5000	0.1017		

* Overall Depth (D) varies from Single and Back-to-Back sections

Important Notes

1. Calculated properties are based on AISI S100-16 Spec, "North American Specification for the Design of Cold-Formed Steel Structural Members".
2. Effective properties incorporate the strength increase from the cold-work of forming as applicable per AISI S100-16 Spec, Sec. A3.3.2 (3).
3. Tabulated gross properties are based on the full-unreduced cross section of the studs, away from punchouts.
4. Net effective section properties are calculated at a cross section through the punchout.
5. Allowable moment is the lesser of M_{sl} and M_{ad} . Stud distortional buckling is based on an assumed $k_{\phi} = 0$.
6. For deflection calculations, use the effective moment of inertia.
7. The effective moment of inertia for deflection is calculated at a stress which results in a section modulus such that the stress times the section modulus at that stress is equal to the allowable moment. AISI S100-16 Procedure I for Serviceability Determination has been used. Increases in the effective moment of inertia (I_{xe}) may be possible at lower stress levels. Any modified values would be required to be calculated by a qualified engineer.
8. The StiffWall Column must be used with the StiffWall Boot. Standard (S) sections will not fit inside the StiffWall Boot or Strap Track.



Single StiffWall® Column Section Properties																	
Section (All 50 ksi)	Gross Properties						Effective Properties 50 ksi										
	Area	I_x	S_x	R_x	I_y	R_y	$A_{e(net)}$	I_{xe}	S_{xe}	M_{al}	$S_{xe(net)}$	$M_{al(net)}$	M_{ad}	$M_{ad(net)}$	V_{ag}	V_{anet}	
	(in ²)	(in ⁴)	(in ³)	(in)	(in ⁴)	(in)	(in ²)	(in ⁴)	(in ³)	(in-k)	(in ³)	(in-k)	(in-k)	(in-k)	(lb)	(lb)	
350C/STW200-33	0.304	0.489	0.312	1.268	0.185	0.781	0.200	0.477	0.267	8.005	0.248	7.431	7.569	7.355	1,260	459	
350C/STW200-43	0.395	0.629	0.401	1.262	0.239	0.777	0.290	0.629	0.371	11.115	0.355	10.630	10.720	10.407	2,141	589	
350C/STW200-54	0.494	0.777	0.495	1.255	0.295	0.774	0.378	0.777	0.476	14.240	0.462	13.843	14.297	13.882	2,988	643	
350C/STW200-68	0.618	0.960	0.612	1.246	0.366	0.769	0.511	0.960	0.612	20.298	0.599	19.876	20.298	19.479	3,725	622	
350C/STW200-97	0.872	1.315	0.838	1.228	0.502	0.759	0.719	1.315	0.838	28.703	0.819	28.083	28.703	28.079	5,197	580	
350C/STW200-118	1.056	1.557	0.992	1.215	0.596	0.752	0.869	1.557	0.992	34.781	0.970	34.006	34.781	34.000	6,242	578	
362C/STW200-33	0.309	0.535	0.328	1.317	0.188	0.781	0.201	0.523	0.282	8.446	0.260	7.794	7.915	7.692	1,235	491	
362C/STW200-43	0.401	0.689	0.422	1.311	0.242	0.778	0.291	0.689	0.391	11.717	0.373	11.161	11.222	10.896	2,141	644	
362C/STW200-54	0.501	0.852	0.522	1.304	0.300	0.774	0.380	0.852	0.501	15.003	0.486	14.546	14.986	14.551	3,121	736	
362C/STW200-68	0.627	1.053	0.645	1.295	0.371	0.769	0.520	1.053	0.645	21.404	0.633	20.999	21.404	20.565	3,892	713	
362C/STW200-97	0.885	1.443	0.884	1.277	0.510	0.760	0.732	1.443	0.884	30.305	0.867	29.708	30.305	29.704	5,436	668	
362C/STW200-118	1.071	1.711	1.048	1.264	0.606	0.752	0.885	1.711	1.048	36.756	1.027	36.011	36.756	36.005	6,534	636	
400C/STW200-33	0.322	0.689	0.379	1.464	0.197	0.782	0.202	0.674	0.328	9.806	0.297	8.882	8.958	8.711	1,097	546	
400C/STW200-43	0.418	0.887	0.488	1.458	0.253	0.779	0.293	0.887	0.453	13.574	0.426	12.750	12.742	12.376	2,141	808	
400C/STW200-54	0.522	1.099	0.604	1.451	0.314	0.775	0.385	1.099	0.579	17.350	0.556	16.650	17.072	16.581	3,372	1,002	
400C/STW200-68	0.654	1.360	0.748	1.442	0.388	0.770	0.533	1.360	0.748	24.808	0.732	21.907	24.516	21.768	4,394	1,019	
400C/STW200-97	0.923	1.871	1.028	1.424	0.534	0.761	0.770	1.871	1.028	35.237	1.013	34.703	35.237	34.699	6,151	966	
400C/STW200-118	1.118	2.224	1.222	1.410	0.634	0.753	0.931	2.224	1.222	42.842	1.203	42.175	42.842	42.169	7,407	928	
550C/STW250-43	0.530	2.281	0.888	2.074	0.491	0.962	0.297	2.263	0.748	22.395	0.748	22.395	19.964	19.452	1,687	1,156	
550C/STW250-54	0.663	2.835	1.103	2.067	0.609	0.958	0.394	2.835	0.952	28.495	0.952	28.495	27.219	26.494	3,350	1,817	
550C/STW250-68	0.832	3.527	1.373	2.059	0.757	0.954	0.541	3.527	1.240	37.123	1.240	37.123	37.025	36.026	5,352	2,284	
550C/STW250-97	1.177	4.902	1.908	2.041	1.050	0.944	0.944	4.902	1.873	62.630	1.873	62.630	63.109	61.411	9,011	2,646	
550C/STW250-118	1.428	5.873	2.286	2.028	1.255	0.937	1.192	5.873	2.286	77.850	2.286	77.850	77.850	77.387	10,900	2,585	
600C/STW250-43	0.553	2.825	1.002	2.261	0.508	0.958	0.298	2.808	0.849	25.412	0.849	25.412	22.108	21.553	1,529	1,205	
600C/STW250-54	0.692	3.514	1.246	2.254	0.630	0.955	0.395	3.514	1.079	32.300	1.079	32.300	30.211	29.419	3,035	1,895	
600C/STW250-68	0.868	4.376	1.552	2.245	0.783	0.950	0.544	4.376	1.404	42.024	1.404	42.024	41.209	40.111	5,352	2,632	
600C/STW250-97	1.228	6.093	2.161	2.228	1.086	0.941	0.953	6.093	2.121	70.909	2.121	70.909	70.573	68.682	9,965	3,380	
600C/STW250-118	1.490	7.308	2.592	2.215	1.299	0.934	1.209	7.308	2.592	88.286	2.592	88.286	88.286	87.864	12,064	3,310	
800C/STW250-43	0.643	5.723	1.498	2.983	0.563	0.936	0.300	5.718	1.169	35.009	1.169	35.009	30.715	30.002	1,112	1,112	
800C/STW250-54	0.805	7.131	1.867	2.976	0.700	0.932	0.399	7.131	1.627	48.704	1.627	48.704	42.289	41.256	2,206	2,098	
800C/STW250-68	1.011	8.900	2.330	2.968	0.870	0.928	0.551	8.900	2.121	63.488	2.121	63.488	58.224	56.756	4,427	3,326	
800C/STW250-97	1.431	12.452	3.260	2.950	1.207	0.918	0.973	12.452	3.199	106.947	3.199	106.947	101.278	98.639	10,888	5,676	
800C/STW250-118	1.739	14.990	3.925	2.936	1.444	0.911	1.246	14.990	3.925	133.672	3.925	133.672	132.999	129.679	16,239	6,877	

Single StiffWall® Column Section Properties (continued)							
Section (All 50 ksi)	Torsional Properties						L _u (in)
	Jx10 ³	C _w	X _o	m	R _o	β	
	(in ⁴)	(in ⁶)	(in)	(in)	(in)		
350C/STW200-33	0.121	0.607	-2.038	1.209	2.524	0.348	47.71
350C/STW200-43	0.268	0.787	-2.032	1.206	2.515	0.347	47.98
350C/STW200-54	0.527	0.982	-2.026	1.203	2.506	0.346	48.31
350C/STW200-68	1.048	1.226	-2.018	1.199	2.493	0.345	48.82
350C/STW200-97	3.006	1.718	-2.001	1.190	2.467	0.342	50.15
350C/STW200-118	5.427	2.068	-1.988	1.183	2.448	0.341	51.40
362C/STW200-33	0.123	0.644	-2.016	1.198	2.531	0.366	47.36
362C/STW200-43	0.272	0.834	-2.010	1.195	2.523	0.365	47.60
362C/STW200-54	0.535	1.040	-2.004	1.192	2.513	0.364	47.90
362C/STW200-68	1.063	1.299	-1.996	1.188	2.501	0.363	48.36
362C/STW200-97	3.050	1.817	-1.979	1.179	2.475	0.361	49.58
362C/STW200-118	5.507	2.186	-1.966	1.172	2.455	0.359	50.73
400C/STW200-33	0.128	0.764	-1.952	1.167	2.562	0.420	46.47
400C/STW200-43	0.283	0.989	-1.946	1.164	2.553	0.419	46.65
400C/STW200-54	0.557	1.232	-1.940	1.161	2.544	0.418	46.88
400C/STW200-68	1.108	1.536	-1.932	1.157	2.531	0.417	47.23
400C/STW200-97	3.181	2.143	-1.915	1.149	2.505	0.415	48.18
400C/STW200-118	5.747	2.573	-1.903	1.142	2.485	0.414	49.07
550C/STW250-43	0.360	3.069	-2.203	1.321	3.175	0.518	54.01
550C/STW250-54	0.708	3.821	-2.197	1.318	3.165	0.518	51.12
550C/STW250-68	1.410	4.763	-2.189	1.314	3.153	0.518	54.30
550C/STW250-97	4.058	6.644	-2.173	1.306	3.127	0.517	54.79
550C/STW250-118	7.343	7.978	-2.161	1.299	3.108	0.517	55.27
600C/STW250-43	0.375	3.671	-2.134	1.288	3.253	0.570	53.58
600C/STW250-54	0.739	4.568	-2.128	1.285	3.244	0.569	53.66
600C/STW250-68	1.471	5.692	-2.121	1.281	3.231	0.569	53.78
600C/STW250-97	4.233	7.932	-2.104	1.273	3.205	0.569	54.15
600C/STW250-118	7.663	9.517	-2.092	1.266	3.186	0.569	54.51
800C/STW250-43	0.436	6.814	-1.904	1.176	3.661	0.729	52.43
800C/STW250-54	0.860	8.472	-1.898	1.173	3.651	0.730	52.42
800C/STW250-68	1.712	10.544	-1.890	1.169	3.639	0.730	52.41
800C/STW250-97	4.934	14.662	-1.873	1.160	3.613	0.731	52.47
800C/STW250-118	8.940	17.565	-1.861	1.153	3.594	0.732	52.55

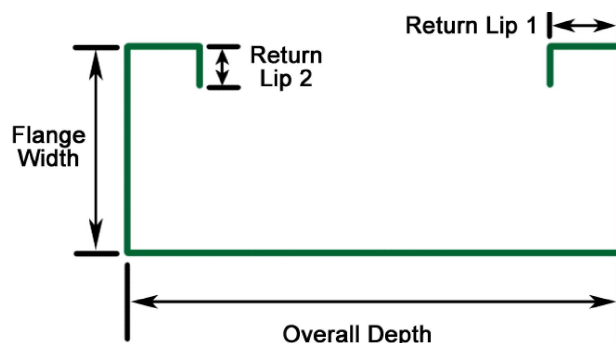
* Overall Depth (D) varies from Single and Back-to-Back sections

Shear Wall Systems

Single StiffWall® Column Axial Load Tables

Important Notes

1. Allowable loads are based on specified weak axis and torsional bracing for axial load calculation.
2. Sections are punched with a standard punch-out 1.5" wide located along the centerline of the web 24" o.c.
3. Allowable loads are based on a punched section for axial load calculation.
4. The allowable axial strength for distortional buckling is based on an assumed $k_y = 0$.
5. Weak axis and torsional bracing should have sufficient stiffness and strength to resist the axial load.
6. Strength increase due to cold work of forming is incorporated in calculating allowable loads as per AISI S100-16 Spec, Sec. A3.3.2 (3).
7. The StiffWall Column must be used with the StiffWall Boot. Standard (S) sections will not fit inside the StiffWall Boot or Strap Track.
8. StiffWall Columns are delivered to the job site with Boots pre-attached at the top and bottom for fast installation.



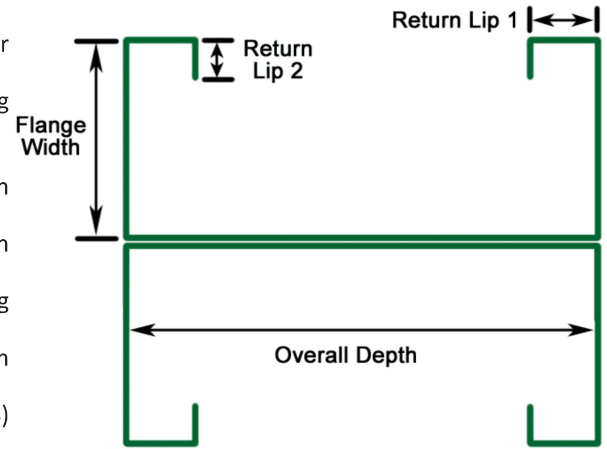
Single Section: Axial Compression Load (kips)												
Single Section (All 50 ksi)	Maximum Unbraced Length = 48"				Maximum Unbraced Length = 60"				Max Unbraced Length = Full Height			
	SW Column Height (ft)				SW Column Height (ft)				SW Column Height (ft)			
	9	10	12	14	9	10	12	14	9	10	12	14
350C/STW200-33	2.64	2.41	1.95	1.57	2.12	1.96	1.64	1.37	0.91	0.75	0.54	0.42
350C/STW200-43	3.56	3.18	2.53	2.03	2.80	2.57	2.14	1.78	1.25	1.04	0.76	0.60
350C/STW200-54	4.47	3.98	3.15	2.52	3.55	3.25	2.70	2.23	1.66	1.40	1.05	0.84
350C/STW200-68	5.64	5.00	3.95	3.15	4.55	4.14	3.41	2.81	2.29	1.95	1.51	1.23
350C/STW200-97	8.10	7.14	5.57	4.40	6.75	6.09	4.94	4.02	3.96	3.45	2.76	2.08
350C/STW200-118	9.97	8.73	6.75	5.31	8.53	7.63	6.10	4.91	5.55	4.84	3.36	2.47
362C/STW200-33	2.78	2.56	2.09	1.71	2.26	2.09	1.77	1.49	0.97	0.80	0.57	0.44
362C/STW200-43	3.83	3.45	2.75	2.21	3.02	2.78	2.33	1.94	1.32	1.10	0.81	0.63
362C/STW200-54	4.81	4.32	3.44	2.76	3.83	3.51	2.93	2.43	1.76	1.48	1.11	0.89
362C/STW200-68	6.06	5.44	4.30	3.44	4.90	4.47	3.71	3.06	2.42	2.06	1.59	1.30
362C/STW200-97	8.79	7.76	6.08	4.82	7.28	6.59	5.37	4.38	4.18	3.64	2.89	2.12
362C/STW200-118	10.82	9.50	7.38	5.81	9.19	8.25	6.64	5.36	5.86	4.93	3.43	2.52
400C/STW200-33	3.15	2.95	2.53	2.09	2.62	2.47	2.13	1.82	1.14	0.94	0.68	0.52
400C/STW200-43	4.44	4.12	3.42	2.81	3.61	3.36	2.89	2.46	1.56	1.29	0.94	0.73
400C/STW200-54	5.75	5.33	4.38	3.53	4.70	4.35	3.68	3.08	2.06	1.73	1.29	1.03
400C/STW200-68	7.33	6.73	5.49	4.42	6.01	5.54	4.66	3.89	2.82	2.39	1.84	1.50
400C/STW200-97	10.73	9.75	7.77	6.20	8.93	8.16	6.76	5.57	4.83	4.21	3.05	2.24
400C/STW200-118	13.23	11.96	9.45	7.50	11.30	10.25	8.38	6.84	6.43	5.21	3.62	2.66
550C/STW250-43	6.34	6.20	5.84	5.39	5.76	5.64	5.30	4.89	2.84	2.37	1.74	1.35
550C/STW250-54	8.32	8.14	7.83	7.30	7.76	7.61	7.18	6.53	3.80	3.19	2.37	1.85
550C/STW250-68	11.94	11.55	10.62	9.57	10.51	10.20	9.46	8.59	5.19	4.38	3.25	2.54
550C/STW250-97	18.21	17.59	16.15	14.50	16.18	15.68	14.50	13.12	8.40	7.11	5.43	4.41
550C/STW250-118	23.05	22.23	20.22	17.92	20.51	19.80	18.12	16.19	11.19	9.62	7.46	5.48
600C/STW250-43	6.59	6.46	6.17	5.80	6.03	5.93	5.69	5.34	3.11	2.60	1.91	1.48
600C/STW250-54	8.66	8.49	8.14	7.81	8.02	7.94	7.68	7.25	4.17	3.50	2.61	2.05
600C/STW250-68	12.38	12.18	11.48	10.55	11.20	10.95	10.32	9.57	5.70	4.81	3.63	2.87
600C/STW250-97	19.32	18.81	17.57	16.12	17.32	16.91	15.93	14.72	9.48	8.02	6.09	4.78
600C/STW250-118	24.60	23.93	22.31	20.42	22.18	21.64	20.34	18.75	12.57	10.76	7.78	5.71
800C/STW250-43	7.13	7.08	6.94	6.74	6.64	6.60	6.49	6.35	3.93	3.27	2.40	1.86
800C/STW250-54	9.44	9.37	9.17	8.90	8.76	8.71	8.56	8.36	5.25	4.40	3.27	2.56
800C/STW250-68	13.47	13.37	13.10	12.74	12.59	12.52	12.34	12.03	7.13	6.02	4.51	3.46
800C/STW250-97	21.88	21.65	21.03	20.20	19.95	19.78	19.34	18.73	11.40	9.51	6.95	5.32
800C/STW250-118	28.13	27.83	27.04	25.95	25.76	25.54	24.96	24.16	14.49	12.08	8.79	6.48

Shear Wall Systems

Back-to-Back Axial Load Tables

Important Notes

1. Allowable loads are based on specified weak axis and torsional bracing for axial load calculation.
2. Sections are punched with a standard punch-out 1.5" wide located along the centerline of the web 24" o.c.
3. Allowable loads are based on a punched section for axial load calculation.
4. The allowable axial strength for distortional buckling is based on an assumed $k_{\phi} = 0$.
5. Weak axis and torsional bracing should have sufficient stiffness and strength to resist the axial load.
6. Strength increase due to cold work of forming is incorporated in calculating allowable loads as per AISI S100-16 Spec, Sec. A3.3.2 (3).
7. Allowable loads for Back-to-Back sections are based on maximum attachment interval of 24" o.c. via weld, bolts, or screws.
8. The StiffWall Column must be used with the StiffWall Boot. Standard (S) sections will not fit inside the StiffWall Boot or Strap Track.
9. StiffWall Columns are delivered to the job site with Boots pre-attached at the top and bottom for fast installation.

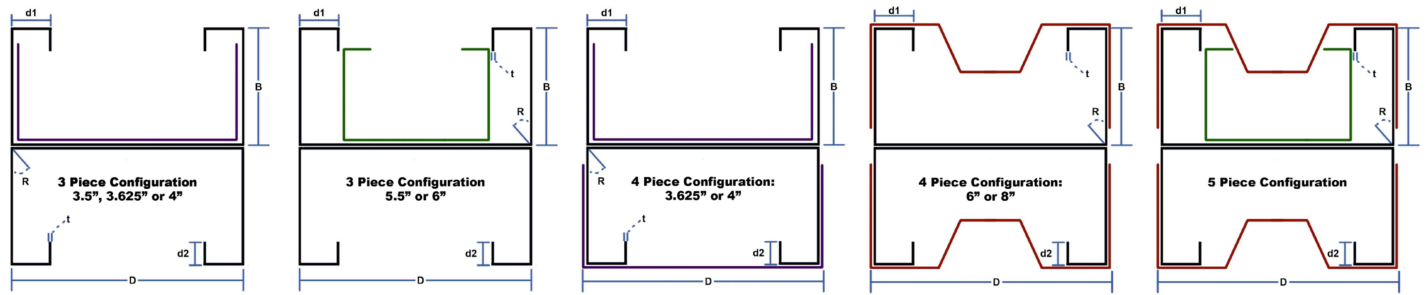


Back-to-Back (Fastener Spacing = 24 in): Axial Compression Load (kips)

Back-to-Back Section (All 50 ksi)	Maximum Unbraced Length = 48"				Maximum Unbraced Length = 60"				Max Unbraced Length = Full Height			
	SW Column Height (ft)				SW Column Height (ft)				SW Column Height (ft)			
	9	10	12	14	9	10	12	14	9	10	12	14
350C/STW200-33-2	7.40	6.71	5.34	4.06	7.40	6.71	5.34	4.06	4.51	3.76	2.73	2.10
350C/STW200-43-2	10.62	9.45	7.13	5.24	10.62	9.45	7.13	5.24	6.28	5.25	3.90	3.09
350C/STW200-54-2	13.33	11.77	8.80	6.47	13.33	11.77	8.80	6.47	8.48	7.18	5.50	4.48
350C/STW200-68-2	17.11	14.93	10.86	7.98	17.11	14.93	10.86	7.98	11.90	10.27	8.15	6.50
350C/STW200-97-2	23.89	20.68	14.84	10.90	23.89	20.68	14.84	10.90	20.21	17.12	12.21	9.11
350C/STW200-118-2	28.66	24.67	17.54	12.89	28.66	24.67	17.54	12.89	24.44	20.63	14.71	10.98
362C/STW200-33-2	7.65	7.00	5.68	4.40	7.65	7.00	5.68	4.40	4.56	3.80	2.78	2.14
362C/STW200-43-2	11.03	9.95	7.75	5.75	11.03	9.95	7.75	5.75	6.40	5.34	3.96	3.13
362C/STW200-54-2	14.11	12.57	9.62	7.11	14.11	12.57	9.62	7.11	8.62	7.29	5.56	4.52
362C/STW200-68-2	17.54	15.60	11.89	8.78	17.54	15.60	11.89	8.78	11.98	10.38	8.20	6.52
362C/STW200-97-2	25.45	22.28	16.34	12.01	25.45	22.28	16.34	12.01	20.35	17.20	12.25	9.15
362C/STW200-118-2	30.62	26.66	19.34	14.21	30.62	26.66	19.34	14.21	24.61	20.72	14.77	11.03
400C/STW200-33-2	8.29	7.72	6.53	5.35	8.29	7.72	6.53	5.35	4.66	3.89	2.87	2.24
400C/STW200-43-2	12.04	11.18	9.21	7.27	12.04	11.18	9.21	7.27	6.60	5.56	4.13	3.24
400C/STW200-54-2	15.77	14.45	11.81	9.25	15.77	14.45	11.81	9.25	9.00	7.58	5.73	4.62
400C/STW200-68-2	20.30	18.48	14.84	11.44	20.30	18.48	14.84	11.44	12.40	10.67	8.34	6.59
400C/STW200-97-2	29.85	26.83	20.96	15.70	29.85	26.83	20.96	15.70	20.76	17.41	12.39	9.24
400C/STW200-118-2	36.11	32.33	25.03	18.63	36.11	32.33	25.03	18.63	25.09	20.98	14.94	11.15
550C/STW250-43-2	14.58	14.16	13.22	12.19	13.93	13.93	13.22	12.19	9.37	8.02	5.90	4.59
550C/STW250-54-2	19.21	18.63	17.33	16.08	18.37	18.37	17.33	16.08	12.67	10.82	8.08	6.37
550C/STW250-68-2	27.22	26.38	24.66	22.40	26.12	26.12	24.66	22.40	17.18	14.93	11.35	9.12
550C/STW250-97-2	43.71	41.89	37.94	33.76	41.86	41.86	37.94	33.76	28.16	25.24	20.00	16.44
550C/STW250-118-2	55.05	52.71	47.64	42.13	53.28	52.71	47.64	42.13	37.15	33.75	27.83	20.78
600C/STW250-43-2	14.76	14.55	13.74	12.84	14.02	14.02	13.74	12.84	9.50	8.17	6.00	4.67
600C/STW250-54-2	19.48	19.20	18.08	16.83	18.50	18.50	18.08	16.83	12.85	11.00	8.19	6.45
600C/STW250-68-2	27.64	27.25	25.68	24.12	26.35	26.35	25.68	24.12	17.41	15.12	11.47	9.19
600C/STW250-97-2	44.77	43.92	40.46	36.72	42.44	42.44	40.46	36.72	28.50	25.48	20.31	16.70
600C/STW250-118-2	56.67	55.61	51.17	46.38	54.24	54.24	51.17	46.38	38.11	34.74	28.12	20.94
800C/STW250-43-2	14.77	14.77	14.77	14.41	14.20	14.20	14.20	14.20	9.77	8.45	6.19	4.79
800C/STW250-54-2	19.55	19.55	19.55	19.06	18.80	18.80	18.80	18.80	13.21	11.31	8.38	6.56
800C/STW250-68-2	27.86	27.86	27.86	27.16	26.85	26.85	26.85	26.85	17.80	15.42	11.59	9.21
800C/STW250-97-2	45.50	45.50	45.50	44.07	43.64	43.64	43.64	43.64	28.93	25.60	19.98	16.29
800C/STW250-118-2	58.25	58.25	58.25	56.47	56.24	56.24	56.24	56.24	38.61	34.72	26.97	20.87

Shear Wall Systems

Built-Up Section Axial Load Tables



Important Notes

1. Allowable loads are based on specified weak axis and torsional bracing for axial load calculation.
2. Sections are punched with a standard punch-out 1.5" wide located along the centerline of the web 24" o.c.
3. Allowable loads are based on a punched section for axial load calculation.
4. The allowable axial strength for distortional buckling is based on an assumed $k_{\phi} = 0$.
5. Weak axis and torsional bracing should have sufficient stiffness and strength to resist the axial load.
6. Allowable loads for built-up sections are based on maximum attachment interval of 24" o.c. via weld, bolts, or screws.
7. The StiffWall® Column must be used with the StiffWall Boot. Standard (S) will not fit inside the StiffWall Boot or Strap Track.
8. StiffWall Columns are delivered to the job site with Boots pre-attached at the top and bottom for fast installation.

Built-Up Section (Fastener Spacing = 24 in): Axial Compression Load (kips)													
Built-up Section (All 50 ksi)	Thickness	Max Unbraced Length = 48"				Max Unbraced Length = 60"				Max Unbraced Length = Full Height			
		SW Column Height (ft)				SW Column Height (ft)				SW Column Height (ft)			
	(mils)	9	10	12	14	9	10	12	14	9	10	12	14
350C/STW200-97-3P	97 (C/STW), 97 (TP)	28.30	24.66	17.90	13.15	28.30	24.66	17.90	13.15	22.28	18.63	13.23	9.85
350C/STW200-118-3P	118 (C/STW), 97 (TP)	32.73	28.48	20.62	15.15	32.73	28.48	20.62	15.15	26.46	22.24	15.81	11.78
362C/STW200-97-3P	97 (C/STW), 97 (TP)	29.77	26.16	19.36	14.23	29.77	26.16	19.36	14.23	22.41	18.70	13.27	9.88
362C/STW200-118-3P	118 (C/STW), 97 (TP)	34.51	30.30	22.37	16.43	34.51	30.30	22.37	16.43	26.63	22.33	15.87	11.82
362C/STW200-97-3P	97 (C/STW), 97 (TP), 97 (T)	34.97	30.42	22.01	16.17	34.97	30.42	22.01	16.17	27.11	25.03	21.43	16.03
362C/STW200-118-3P	118 (C/STW), 97 (TP), 97 (T)	39.14	33.97	24.49	17.99	39.14	33.97	24.49	17.99	35.38	32.83	24.11	17.99
400C/STW200-97-3P	97 (C/STW), 97 (TP)	34.00	30.54	23.82	17.82	34.00	30.54	23.82	17.82	22.77	18.90	13.41	9.98
400C/STW200-118-3P	118 (C/STW), 97 (TP)	39.64	35.60	27.75	20.75	39.64	35.60	27.75	20.75	27.08	22.58	16.03	11.94
400C/STW200-97-3P	97 (C/STW), 97 (TP), 97 (T)	40.72	36.38	27.89	20.64	40.72	36.38	27.89	20.64	27.62	25.23	21.90	16.69
400C/STW200-118-3P	118 (C/STW), 97 (TP), 97 (T)	45.82	40.88	31.26	23.10	45.82	40.88	31.26	23.10	36.02	33.76	25.06	18.74
550C/STW250-97-3P	97 (C/STW), 97 (S)	56.31	53.63	47.88	41.88	54.17	53.63	47.88	41.88	35.83	32.12	25.39	18.87
550C/STW250-118-3P	118 (C/STW), 97 (S)	67.61	64.39	57.50	50.00	65.66	64.39	57.50	50.00	45.07	40.94	30.35	22.57
600C/STW250-97-3P	97 (C/STW), 97 (S)	58.51	56.13	50.98	45.51	54.89	54.89	50.98	45.51	36.24	32.39	25.43	19.00
600C/STW250-118-3P	118 (C/STW), 97 (S)	70.61	67.77	61.62	55.07	66.75	66.75	61.62	55.07	46.16	41.81	30.57	22.73
600C/STW250-97-3P	97 (C/STW), 97 (SGP)	82.23	79.29	72.57	65.37	74.96	79.29	72.57	65.37	69.98	65.46	56.08	46.68
600C/STW250-118-3P	118 (C/STW), 97 (SGP)	93.87	90.60	82.85	74.52	85.41	90.60	82.85	74.52	79.12	73.79	62.67	51.16
600C/STW250-97-3P	97 (C/STW), 97 (S), 97 (SGP)	95.30	91.40	82.98	74.03	95.30	91.40	82.98	74.03	78.91	73.13	61.30	49.73
600C/STW250-118-3P	118 (C/STW), 97 (S), 97 (SGP)	107.06	102.68	93.19	83.10	107.06	102.68	93.19	83.10	87.87	81.25	67.48	53.84
800C/STW250-97-3P	97 (C/STW), 97 (S)	61.20	61.20	61.20	57.86	57.61	57.61	57.61	57.61	37.47	32.92	24.44	18.74
800C/STW250-118-3P	118 (C/STW), 97 (S)	73.91	73.91	73.91	70.21	70.11	70.11	70.11	70.11	46.78	40.78	30.34	23.26
800C/STW250-97-3P	97 (C/STW), 97 (SGP)	92.13	92.13	92.13	87.36	83.63	83.63	83.63	87.36	79.69	74.74	64.44	54.09
800C/STW250-118-3P	118 (C/STW), 97 (SGP)	104.69	104.69	104.69	99.52	94.95	94.95	94.95	99.52	89.60	83.80	71.77	59.76
800C/STW250-97-3P	97 (C/STW), 97 (S), 97 (SGP)	107.85	107.85	107.49	100.93	97.96	97.96	107.49	100.93	89.91	83.62	70.70	57.98
800C/STW250-118-3P	118 (C/STW), 97 (S), 97 (SGP)	120.37	120.37	120.36	113.07	109.22	109.22	120.36	113.07	99.58	92.41	77.72	63.32