

STEEL STRONG-WALL®: Cold-Formed Steel on Concrete Foundations

2006 INTERNATIONAL BUILDING CODE®

S/SSW Model	Max. H (in.)	Allowable Axial Load (lbs)	Seismic ²			Wind		
			Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in)	Uplift at Allowable Shear ⁶ (lbs)	Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in)	Uplift at Allowable Shear ⁶ (lbs)
S/SSW12x7	80	1000	845	0.35	8460	1070	0.44	11405
		4000	845	0.35	8460	1060	0.44	11265
		7500	845	0.35	8460	885	0.37	8950
S/SSW15x7	80	1000	1645	0.34	13340	1810	0.38	15135
		4000	1640	0.34	13290	1640	0.34	13290
		7500	1440	0.30	11290	1440	0.30	11290
S/SSW18x7	80	1000	2800	0.33	18690	3375	0.40	24545
		4000	2800	0.33	18690	3250	0.38	23135
		7500	2800	0.33	18690	2980	0.35	20370
S/SSW21x7	80	1000	4050	0.32	22590	4440	0.35	25710
		4000	4050	0.32	22590	4440	0.35	25710
		7500	4050	0.32	22590	4310	0.34	24635
S/SSW24x7	80	1000	5250	0.30	24710	5250	0.30	24710
		4000	5250	0.30	24710	5250	0.30	24710
		7500	5250	0.30	24710	5250	0.30	24710
S/SSW12x8X	97	1000	645	0.42	7710	820	0.54	10360
		4000	645	0.42	7710	775	0.51	9640
		7500	610	0.40	7220	610	0.40	7220
S/SSW15x8X	97	1000	1280	0.42	12390	1415	0.47	14090
		4000	1250	0.41	12025	1250	0.41	12025
		7500	1070	0.35	9955	1070	0.35	9955
S/SSW18x8X	97	1000	2140	0.41	16895	2785	0.54	24565
		4000	2140	0.41	16895	2680	0.52	23130
		7500	2140	0.41	16895	2460	0.48	20400
S/SSW21x8X	97	1000	3265	0.41	21905	3870	0.48	27930
		4000	3265	0.41	21905	3765	0.47	26790
		7500	3265	0.41	21905	3460	0.43	23715
S/SSW24x8X	97	1000	4540	0.39	26335	4985	0.43	30045
		4000	4540	0.39	26335	4890	0.42	29220
		7500	4540	0.39	26335	4555	0.39	26455
S/SSW12x9X	109	1000	545	0.48	7255	695	0.61	9735
		4000	545	0.48	7255	605	0.53	8210
		7500	445	0.39	5755	445	0.39	5755
S/SSW15x9X	109	1000	1090	0.48	11725	1180	0.52	12955
		4000	1025	0.45	10875	1025	0.45	10875
		7500	850	0.37	8720	850	0.37	8720
S/SSW18x9X	109	1000	1835	0.47	16105	2365	0.61	22835
		4000	1835	0.47	16105	2365	0.61	22835
		7500	1835	0.47	16105	2150	0.55	19890
S/SSW21x9X	109	1000	2800	0.46	20855	3275	0.54	25900
		4000	2800	0.46	20855	3025	0.50	23140
		7500	2735	0.45	20220	2735	0.45	20220
S/SSW24x9X	109	1000	4005	0.46	26025	4220	0.48	27970
		4000	3950	0.45	25540	3950	0.45	25540
		7500	3630	0.41	22855	3630	0.41	22855
S/SSW15x10X	121	1000	945	0.53	11185	990	0.56	11845
		4000	835	0.47	9645	835	0.47	9645
		7500	665	0.37	7425	665	0.37	7425
S/SSW18x10X	121	1000	1605	0.53	15515	2045	0.67	21490
		4000	1605	0.53	15515	1960	0.64	20225
		7500	1605	0.53	15515	1715	0.56	16890
S/SSW21x10X	121	1000	2440	0.52	19970	2650	0.56	22275
		4000	2405	0.51	19600	2405	0.51	19600
		7500	2120	0.45	16730	2120	0.45	16730
S/SSW24x10X	121	1000	3425	0.50	24275	3425	0.50	24275
		4000	3160	0.46	21875	3160	0.46	21875
		7500	2855	0.42	19275	2855	0.42	19275

NOTE:

For models with an "X" suffix, specify height when ordering (example: S/SSW12x8X, h=95").

- Allowable shear loads and anchor uplifts are applicable to installation on concrete with minimum $f_c = 2500$ psi using the ASD basic (Section 1605.3.1) or the alternative basic (Section 1605.3.2) load combinations. Load values include evaluation of bearing stresses.
- For seismic designs based on the 2006 IBC using $R = 6.5$. For other codes, use the seismic coefficients corresponding to light-frame bearing walls with wood structural panels or sheet steel panels.
- Top-of-wall screws for the S/SSW shall be approved $\frac{1}{4}$ " or #14 self-drilling screws with a minimum nominal shear strength (P_{ss}) of 2000 lbs. Top of panel shall be connected to a minimum 43 mil (No. 18 gauge) thick steel member typical. S/SSW18 and wider panels up to 97 inches tall require connection to a minimum 54 mil (No. 16 gauge) thick steel member. When connected to a minimum 43 mil (No. 18 gauge) thick steel member, the allowable load shall be limited to 2720 lbs. for S/SSW18, 3625 lbs. for S/SSW21, and 4230 lbs. for S/SSW24.
- Allowable shear, drift, and uplift values may be interpolated for intermediate height or axial loads. See example on page 31.
- High-strength anchor bolts are required for anchor tension (uplift) forces exceeding the allowable load for standard-strength bolts tabulated on pages 32-33. See pages 32-37 for SSWAB anchor bolt information and anchorage solutions.
- Tabulated anchor tension (uplift) loads assume no resisting axial load. For anchor tension loads at design shear values and including the effect of axial load, refer to the Strong-Wall Selector™ software or use the equations on page 15. Drifts at lower design shear may be linearly reduced.
- See page 31 for allowable out-of-plane loads and axial capacities.