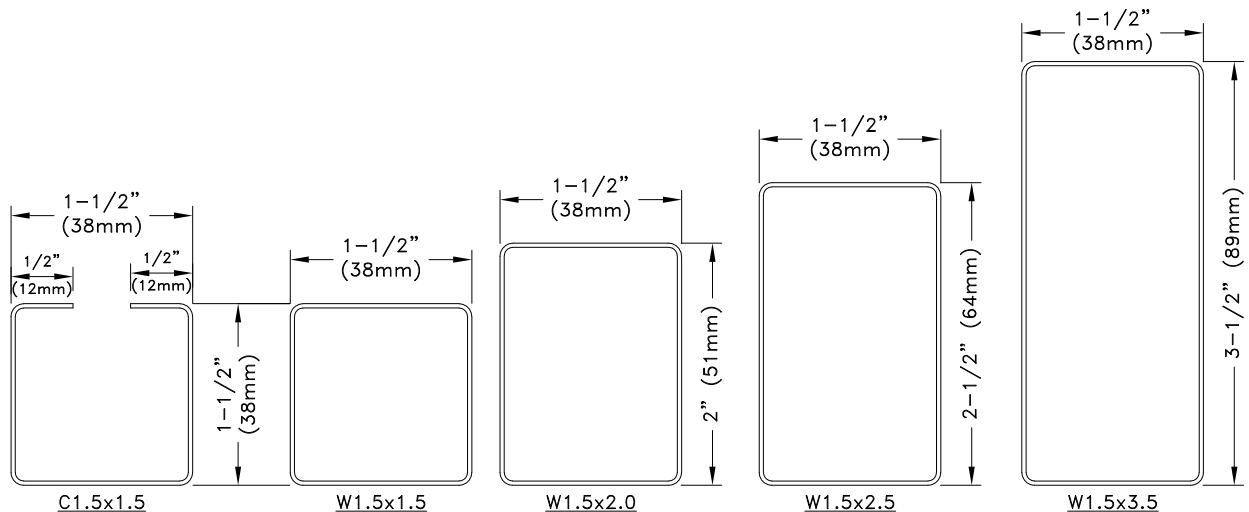


IMPERIAL WEB VALUES

SECTION NAME	GAUGE	DESIGN THICKNESS (in)	F _y (ksi)	F _u (ksi)	FULL SECTION PROPERTIES					FULLY BRACED ALLOWABLES			WEIGHT (lbs./ft.)
					A _g (in ²)	I _x (in ⁴)	S _x (in ³)	I _y (in ⁴)	S _y (in ³)	T _a (lbs.)	P _a (lbs.)	M _{ax} (in-lbs.)	
33C1.5x1.5	20	0.0346	40	55	0.1800	0.0593	0.0723	0.0691	0.0922	4,547	3,747	1,818	0.612
33W1.5x1.5	20	0.0350	45	55	0.1998	0.0705	0.0939	0.0705	0.0939	5,385	4,711	2,451	0.680
33W1.5x2.0	20	0.0350	45	55	0.2348	0.1381	0.1381	0.0893	0.1190	6,328	4,953	3,611	0.798
47W1.5x1.5	18	0.0460	45	48	0.2585	0.0893	0.1191	0.0893	0.1191	6,203	6,461	3,208	0.879
47W1.5x2.5	18	0.0490	45	55	0.3721	0.3179	0.2544	0.1458	0.1944	10,026	8,351	6,854	1.265
56W1.5x1.5	16	0.0590	45	48	0.3251	0.1096	0.1461	0.1096	0.1461	7,803	8,128	3,937	1.106
63W1.5x3.5	16	0.0650	45	55	0.6150	0.9346	0.5341	0.2522	0.3362	16,571	13,248	14,390	2.091

METRIC WEB VALUES

SECTION NAME	GAUGE	DESIGN THICKNESS (mm)	F _y (MPa)	F _u (MPa)	FULL SECTION PROPERTIES					FULLY BRACED ALLOWABLES			WEIGHT (kN/m)
					A _g (mm ²)	I _x (mm ⁴)	S _x (mm ³)	I _y (mm ⁴)	S _y (mm ³)	T _a (kN)	P _a (kN)	M _{ax} (kN-mm)	
33C1.5x1.5	20	0.8788	276	379	116	24,683	1,185	28,762	1,511	20.23	16.67	205.4	0.009
33W1.5x1.5	20	0.8890	310	379	129	29,344	1,539	29,344	1,539	23.95	20.96	276.9	0.010
33W1.5x2.0	20	0.8890	310	379	151	57,482	2,263	37,169	1,950	28.15	22.03	408.0	0.012
47W1.5x1.5	18	1.1684	310	330	167	37,169	1,952	37,169	1,952	27.59	28.74	362.5	0.013
47W1.5x2.5	18	1.2446	310	379	240	132,320	4,169	60,687	3,186	44.60	37.15	774.4	0.185
56W1.5x1.5	16	1.4986	310	330	210	45,619	2,394	45,619	2,394	34.71	36.16	444.8	0.016
63W1.5x3.5	16	1.6510	310	379	397	389,010	8,752	104,974	5,509	73.71	58.93	1,626.0	0.305



General Notes:

1. Steel for C1.5x1.5 is ASTM A653 with G90 minimum galvanization. Steel for all other tubes is ASTM A500 with G90 minimum galvanization or equal. Bare metal thickness is 95% of design thickness.
2. S_x and M_{ax} are for positive bending causing compression at the closed end of the section.
3. T_a = Allowable Tension, P_a = Allowable Compression, M_{ax} = Allowable Moment
4. The allowable values given in this table do not reflect any strength increase due to cold work of forming.
5. Properties determined according to the 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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TSC3.00 & TSC4.00 C-Web and Tube Web Properties

Alpine, a division of ITW Building Components Group, Inc. shall not be responsible for any performance failure in a connection due to a deviation from this detail. Any variation from this detail shall be approved in advance by Alpine, a division of ITW Building Components Group, Inc.

Standard Detail:

TS010

Date:

06/01/22

TrusSteel Detail Category:

Member Section Properties