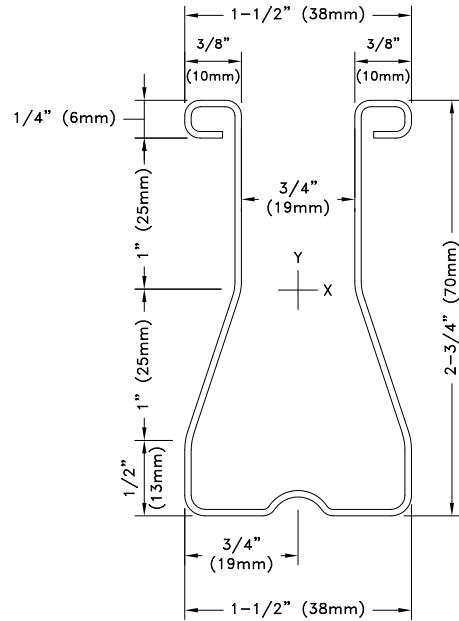


IMPERIAL CHORD VALUES

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.)	
28TSC2.75	22	0.0299	55	65	0.2510	0.2450	0.1754	0.0709	0.0943	8,158	7,381	5,776	0.85
33TSC2.75	20	0.0346	55	65	0.2888	0.2803	0.2002	0.0813	0.1081	9,386	8,734	6,594	0.98
43TSC2.75	18	0.0451	55	65	0.3716	0.3562	0.2532	0.1040	0.1382	12,077	11,354	8,337	1.26

METRIC CHORD 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)	
28TSC2.75	22	0.7595	379	448	162	101,977	2,874	29,511	1,545	36.29	32.83	653	0.012
33TSC2.75	20	0.8788	379	448	186	116,670	3,281	33,840	1,771	41.75	38.85	745	0.014
43TSC2.75	18	1.1455	379	448	240	148,262	4,149	43,288	2,265	53.72	50.51	942	0.018



TSC2.75 Chord Section

General Notes:

1. All steel is ASTM A653 steel with G90 minimum galvanization. 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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TSC2.75 Chord 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:

TS007

Date:

06/01/22

TrusSteel Detail Category:

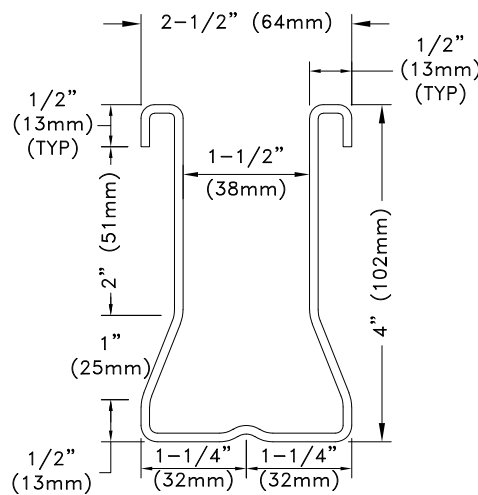
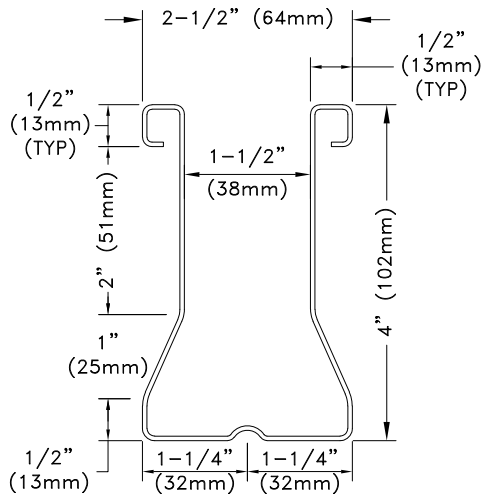
Member Section Properties

IMPERIAL CHORD 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.)	Max (in-lbs.)	
28TSC4.00	22	0.0299	55	65	0.3808	0.8080	0.3868	0.3138	0.2506	12,375	8,586	11,284	1.29
33TSC4.00	20	0.0346	55	65	0.4389	0.9282	0.4431	0.3616	0.2887	14,266	10,368	13,299	1.49
43TSC4.00	18	0.0451	55	65	0.5673	1.1900	0.5671	0.4649	0.3716	18,437	14,495	17,879	1.93
54TSC4.00	16	0.0566	55	65	0.7052	1.4660	0.6962	0.5740	0.4597	22,918	19,286	22,240	2.40
68TSC4.00	14	0.0713	50	65	0.8557	1.7450	0.8116	0.6920	0.5531	25,621	22,871	23,839	2.91
97TSC4.00	12	0.1017	50	65	1.1957	2.3780	1.1006	0.9630	0.7704	35,798	33,213	32,952	4.07

METRIC CHORD 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)	Max (kN-mm)	
28TSC4.00	22	0.7595	379	448	246	336,314	6,339	130,613	4,107	55.05	38.19	1,275	0.018
33TSC4.00	20	0.8788	379	448	283	386,346	7,273	150,509	4,731	63.46	46.12	1,503	0.022
43TSC4.00	18	1.1455	379	448	366	495,315	9,293	193,506	6,089	82.01	64.48	2,020	0.028
54TSC4.00	16	1.4376	379	448	455	610,195	11,409	238,917	7,533	101.94	85.79	2,513	0.035
68TSC4.00	14	1.8110	345	448	552	726,324	13,300	288,032	9,064	113.97	101.74	2,693	0.042
97TSC4.00	12	2.5832	345	448	771	989,798	18,036	400,831	12,625	159.24	147.74	3,723	0.059



28 to 54TSC4.00 Chord Section

68 and 97TSC4.00 Chord Section

General Notes:

1. All steel is ASTM A653 steel with G90 minimum galvanization. Bare metal thickness is 95% of design thickness.
2. S_x and Max are for positive bending causing compression at the closed end of the section.
3. T_a = Allowable Tension, P_a = Allowable Compression, Max = 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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TSC4.00 Chord Properties

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Standard Detail:

TS008

Date:

06/01/22

TrusSteel Detail Category:

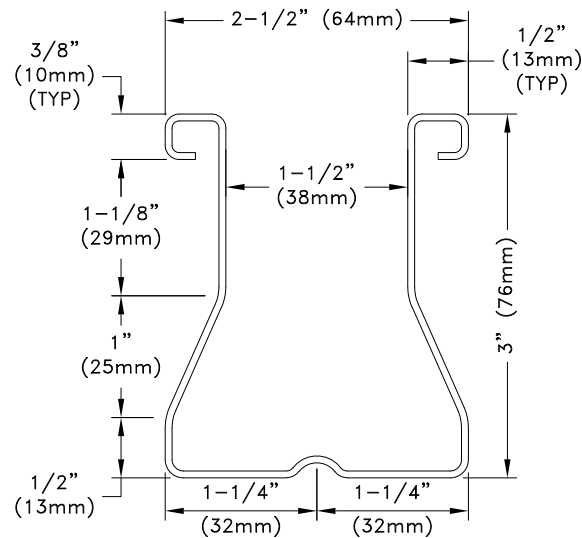
Member Section Properties

IMPERIAL CHORD 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.)	
28TSC3.00	22	0.0299	55	65	0.3135	0.3914	0.2437	0.2672	0.2134	10,188	8,135	7,267	1.07
33TSC3.00	20	0.0346	55	65	0.3611	0.4489	0.2791	0.3074	0.2453	11,736	9,757	8,589	1.23
43TSC3.00	18	0.0451	55	65	0.4658	0.5733	0.3550	0.3938	0.3148	15,139	13,351	11,204	1.58
54TSC3.00	16	0.0566	55	65	0.5778	0.7031	0.4335	0.4848	0.3880	18,779	16,811	13,874	1.96

METRIC CHORD 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)	
28TSC3.00	22	0.7595	379	448	202	162,913	3,994	111,217	3,497	45	36	821	0.016
33TSC3.00	20	0.8788	379	448	233	186,846	4,574	127,950	4,020	52	43	970	0.018
43TSC3.00	18	1.1455	379	448	301	238,625	5,817	163,912	5,159	67	59	1,266	0.023
54TSC3.00	16	1.4376	379	448	373	292,652	7,104	201,789	6,358	84	75	1,568	0.029



28 to 54TSC3.00 Chord Section

General Notes:

1. All steel is ASTM A653 steel with G90 minimum galvanization. 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 Chord 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:
TS008A

Date:
06/01/22

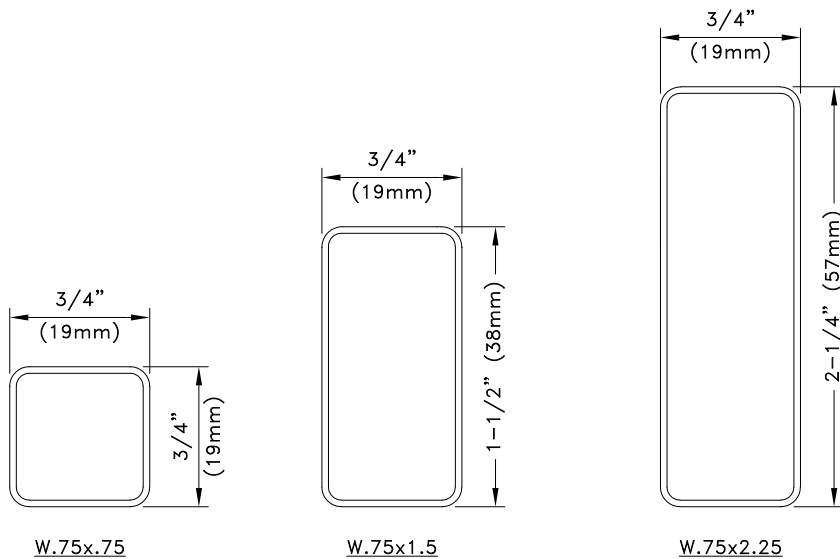
TrusSteel Detail Category:
Member Section Properties

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.)	
33W.75x.75	20	0.0350	45	55	0.0948	0.0078	0.0208	0.0078	0.0208	2,556	2,371	562	0.322
33W.75x1.5	20	0.0350	45	55	0.1473	0.0423	0.0564	0.0145	0.0388	3,970	3,541	1,519	0.501
33W.75x2.25	20	0.0350	45	55	0.1998	0.1182	0.1051	0.0213	0.0567	5,385	3,860	2,831	0.679

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)	
33W.75x.75	20	0.8890	310	379	61	3,247	341	3,247	341	11.37	10.55	63.5	0.005
33W.75x1.5	20	0.8890	310	379	95	17,607	924	6,035	636	17.66	15.75	171.6	0.007
33W.75x2.25	20	0.8890	310	379	129	49,199	1722	8,866	929	23.95	17.17	319.9	0.010



General Notes:

1. All tubes to conform to ASTM A500 with G90 minimum galvanization or equal. Bare metal thickness is 95% of design thickness.
2. T_a = Allowable Tension, P_a = Allowable Compression, M_{ax} = Allowable Moment
3. The allowable values given in this table do not reflect any strength increase due to cold work of forming.
4. 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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TSC2.75 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:

TS009

Date:

06/01/22

TrusSteel Detail Category:

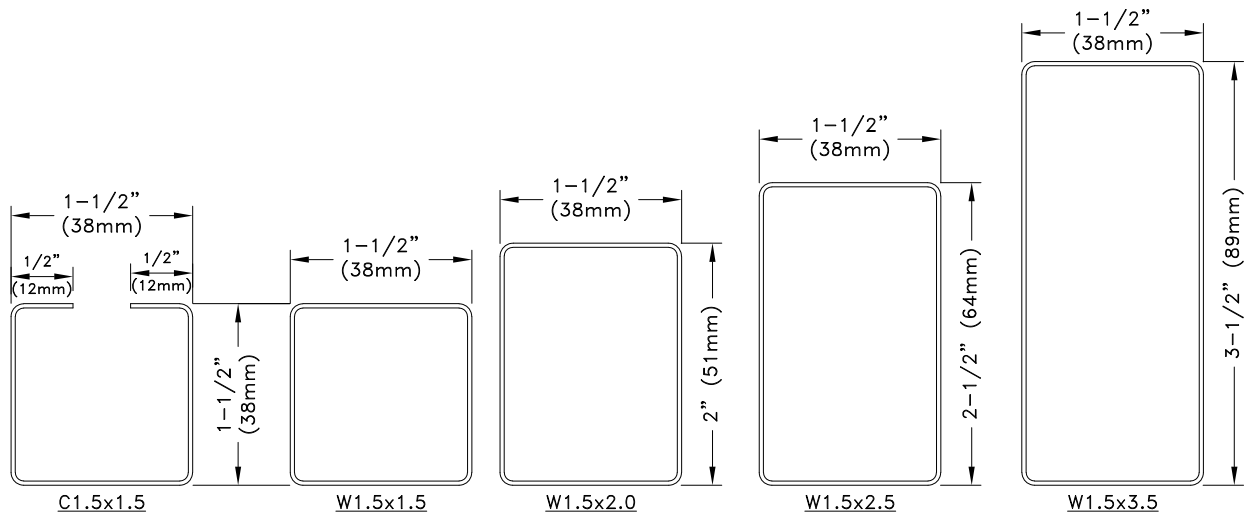
Member Section Properties

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

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Standard Detail:

TS010

Date:

06/01/22

TrusSteel Detail Category:

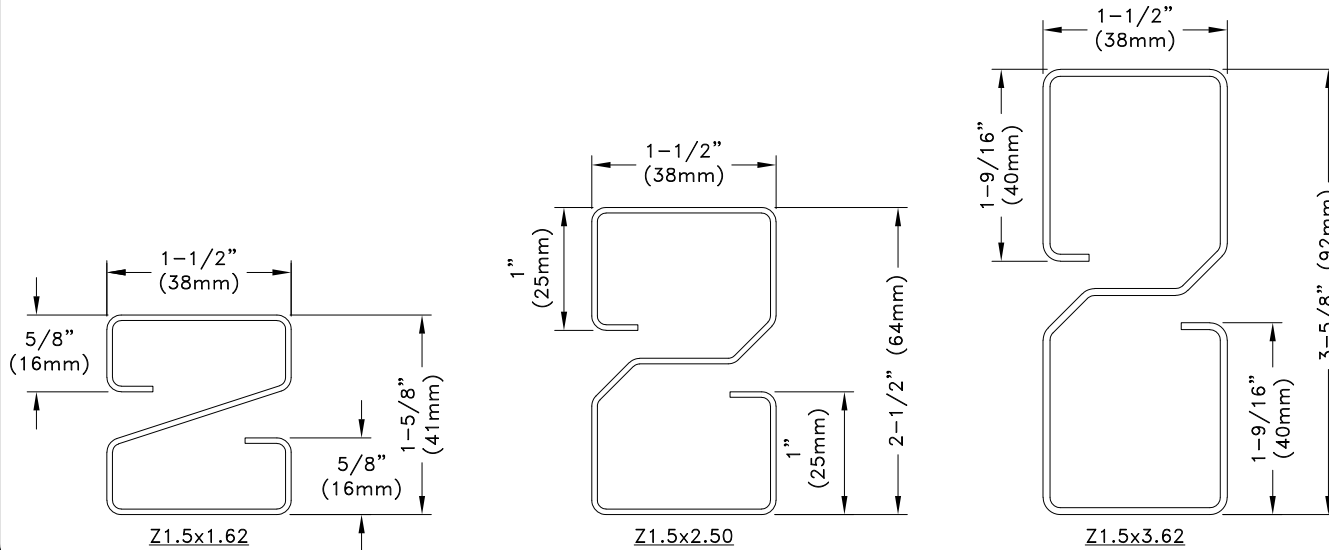
Member Section Properties

IMPERIAL Z-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.)	
33Z1.5X1.62	20	0.0346	40	55	0.2496	0.0851	0.1047	0.0731	0.0974	5,979	5,397	2,474	0.849
43Z1.5X1.62	18	0.0451	40	55	0.3218	0.1087	0.1338	0.0926	0.1235	7,707	7,150	3,204	1.094
33Z1.5X2.50	20	0.0346	40	55	0.3070	0.2333	0.1867	0.1030	0.1374	7,353	6,759	4,416	1.044
43Z1.5X2.50	18	0.0451	40	55	0.3966	0.2998	0.2398	0.1311	0.1748	9,499	8,813	5,744	1.348
43Z1.5X3.62	18	0.0451	40	55	0.4980	0.7437	0.4103	0.1848	0.2464	11,929	10,611	9,796	1.693
54Z1.5X3.62	16	0.0566	50	65	0.6163	0.9157	0.5052	0.2242	0.2990	18,452	16,554	15,078	2.095

METRIC Z-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)	
33Z1.5X1.62	20	0.8788	276	379	161	35,421	1,716	30,427	1,596	26.60	24.01	279.5	0.012
43Z1.5X1.62	18	1.1455	276	379	208	45,244	2,193	38,543	2,024	34.28	31.80	362.0	0.160
33Z1.5X2.50	20	0.8788	276	379	198	97,107	3,059	42,872	2,252	32.71	30.07	499.0	0.152
43Z1.5X2.50	18	1.1455	276	379	256	124,786	3,930	54,568	2,864	42.25	39.20	649.0	0.197
43Z1.5X3.62	18	1.1455	276	379	321	309,551	6,724	76,920	4,038	53.06	47.20	1,107.0	0.247
54Z1.5X3.62	16	1.4376	345	448	398	381,143	8,279	93,319	4,900	82.08	73.64	1,703.6	0.306



General Notes:

1. All steel is ASTM A653 steel with G90 minimum galvanization. Bare metal thickness is 95% of design thickness.
2. T_a = Allowable Tension, P_a = Allowable Compression, M_{ax} = Allowable Moment
3. The allowable values given in this table do not reflect any strength increase due to cold work of forming.
4. 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
Z-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:
TS010A

Date:
06/01/22

TrusSteel Detail Category:
Member Section Properties