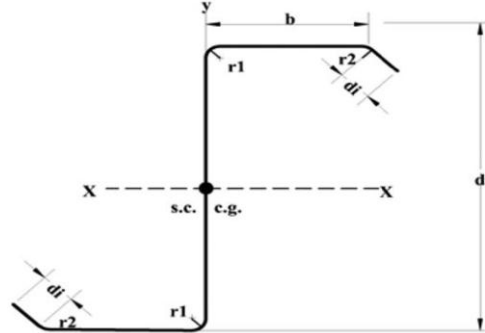


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Table 'A'

SM 'Z' Sections



Full Section Properties for SM 'Z' Sections

Designation	Weight lb. / ft	Area in ²	Depth in	Flange Width in	Stiff'r Depth in	Thick- ness in	Full Section Properties										
							X - X Axis			Y - Y Axis			Xo in	ro in	J 10 ⁻⁶ in ⁴	j in	Cw in ⁶
							Ix in ⁴	Sx in ³	rx in	Iy in ⁴	Sy in ³	ry in					
Z 6 x .060	2.60	0.763	6.00	2.91	0.67	0.060	4.52	1.51	2.44	1.69	0.50	1.49	0.00	2.86	908	0.00	9.34
Z 6 x .075	3.24	0.953	6.00	2.91	0.70	0.075	5.63	1.88	2.43	2.13	0.63	1.50	0.00	2.85	1772	0.00	11.77
Z 6 x .105	4.53	1.333	6.00	2.91	0.75	0.105	7.79	2.60	2.42	3.03	0.89	1.51	0.00	2.85	4865	0.00	16.63
Z 8 x .060	3.00	0.883	8.00	2.91	0.67	0.060	8.76	2.19	3.15	1.69	0.50	1.38	0.00	3.44	1051	0.00	17.92
Z 8 x .075	3.74	1.102	8.00	2.91	0.70	0.075	10.91	2.73	3.15	2.13	0.63	1.39	0.00	3.44	2050	0.00	22.59
Z 8 x .105	5.24	1.543	8.00	2.91	0.75	0.105	15.16	3.79	3.13	3.03	0.89	1.40	0.00	3.43	5628	0.00	31.95
Z 10 x .060	3.41	1.003	10.00	2.91	0.67	0.060	14.76	2.95	3.84	1.69	0.50	1.30	0.00	4.05	1193	0.00	29.61
Z 10 x .075	4.25	1.251	10.00	2.91	0.70	0.075	18.40	3.68	3.83	2.13	0.63	1.31	0.00	4.05	2327	0.00	37.34
Z 10 x .105	5.96	1.752	10.00	2.91	0.75	0.105	25.62	5.12	3.82	3.03	0.89	1.32	0.00	4.04	6391	0.00	52.86
Z 12 x .060	3.82	1.122	12.00	2.91	0.67	0.060	22.76	3.79	4.51	1.69	0.50	1.23	0.00	4.67	1336	0.00	44.50
Z 12 x .075	4.76	1.401	12.00	2.91	0.70	0.075	28.39	4.73	4.50	2.13	0.63	1.23	0.00	4.67	2605	0.00	56.14
Z 12 x .105	6.67	1.961	12.00	2.91	0.75	0.105	39.58	6.60	4.49	3.03	0.89	1.24	0.00	4.66	7153	0.00	79.51

SM 'Z' Section Notes

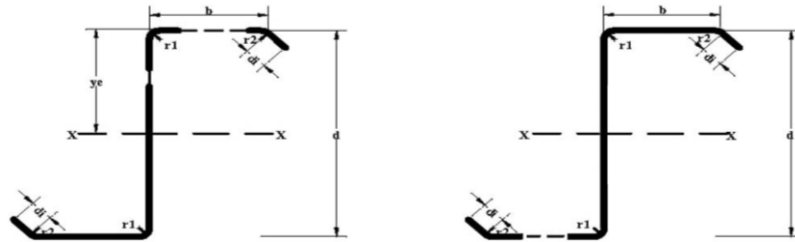
- 1) Load tables based on use of A653 Structural Quality Steel Sheet Grade 50 (maximum stress 45 Ksi).
- 2) All channels shall have Z-275 galvanizing protection.
- 3) See Table 'B' for Effective Section Properties and Table 'Z' for Specified Load / Span Tables.

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Table 'B'

SM 'Z' Sections



Effective Section Properties for SM 'Z' Sections

Designation	Surf. Area	Effective Section Properties X - X Axis											Effective Section Properties Y - Y Axis					
		I _{xe}	S _{xe}	y _e	Mr _{xe}	Vr _{ex}	Ext Web Crippling			Int Web Crippling			I _{ye}	S _{ye}	r _{ye}	φM _{ny}	φV _{ny}	Lu
							Bear. L. in inches			Bear. L. in inches								
		ft ² /ft	in ⁴	in ³	in	K-in	K	2	4	6	2	4	6	in ⁴	in ³	in	K-in	K
Z 6 x .060	2.13	3.90	1.19	3.29	53.6	4.1	1.04	1.33	1.55	1.70	2.02	2.26	1.21	0.39	3.10	12.3	7.2	54.7
Z 6 x .075	2.13	5.01	1.55	3.23	69.8	7.0	1.61	2.04	2.37	2.79	3.27	3.64	1.61	0.51	3.16	16.1	8.9	54.6
Z 6 x .105	2.13	7.46	2.41	3.09	108.5	13.0	3.09	3.86	4.45	5.75	6.66	7.35	2.71	0.82	3.30	25.8	12.3	54.6
Z 8 x .060	2.46	7.58	1.74	4.36	78.3	3.0	1.00	1.28	1.49	1.67	1.98	2.22	1.22	0.39	3.13	12.3	7.2	54.2
Z 8 x .075	2.46	9.79	2.30	4.27	103.5	5.9	1.55	1.97	2.29	2.74	3.22	3.59	1.62	0.51	3.24	15.8	8.9	54.1
Z 8 x .105	2.46	14.53	3.53	4.11	158.9	13.8	5.00	3.75	4.33	5.68	6.57	7.25	2.71	0.82	3.30	25.8	12.3	53.9
Z 10 x .060	2.79	12.17	2.15	5.65	96.8	2.4	0.96	1.23	1.43	1.65	1.95	2.19	1.22	0.39	3.21	12.0	7.2	53.7
Z 10 x .075	2.79	16.63	3.14	5.29	141.3	4.7	1.50	1.91	2.21	2.71	3.18	3.54	1.62	0.51	3.24	15.8	8.9	53.5
Z 10 x .105	2.79	24.59	4.80	5.13	216.0	12.8	2.92	3.66	4.22	5.61	6.49	7.17	2.71	0.82	3.35	25.5	12.3	53.3
Z 12 x .060	3.19	17.65	2.46	7.16	110.7	2.0	0.93	1.19	1.39	1.62	1.92	2.15	1.22	0.39	3.21	12.0	7.2	53.1
Z 12 x .075	3.19	23.59	3.44	6.87	154.8	3.9	1.46	1.85	2.15	2.67	3.14	3.49	1.63	0.51	3.26	15.8	8.9	53.0
Z 12 x .105	3.19	36.94	5.82	6.35	261.9	10.6	2.85	3.57	4.12	5.55	6.42	7.09	2.71	0.82	3.35	25.5	12.3	52.6

SM 'Z' Section Notes

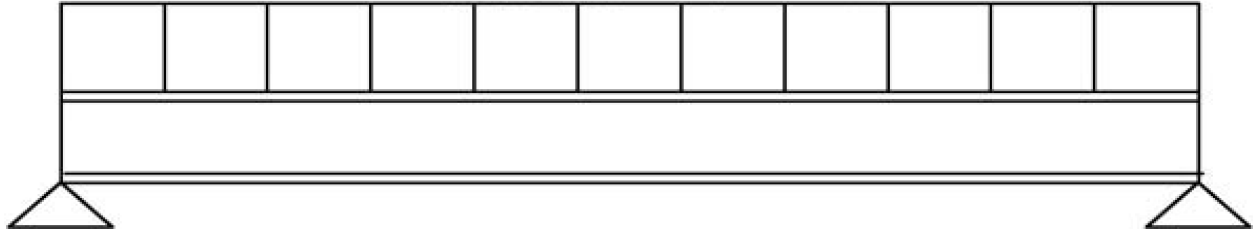
- 1) Load tables based on use of A653 Structural Quality Steel Sheet Grade 50 (maximum stress 45 Ksi).
- 2) All channels shall have Z-275 galvanizing protection.
- 3) Effective properties are used to calculate bending and compression capacities.
- 4) See Table 'A' for Full Section Properties and Table 'Z' for Specified Load / Span Tables.
- 5) **Load capacities for bending, shear and web crippling on Table 'B' are factored values. For use of these values with Table 'Z' divide the factored value by 1.5 to derive Specified values.**

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Table 'C'

SM 'Z' Sections



Specified Bending & Deflection Loads for 'Z' Sections

Span in Feet	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0
Designation	Specified Uniform Loading (x.xx denotes kips / lineal ft. and xxx denotes lb. / lineal ft.)																					
Z 6 x .060	216	180	152	131	113	99	87	78	70	63	57	51	47	43	40	37	34	31	29	27	26	24
	<i>294</i>	224	174	138	112	91	76	63	54	46	39	34	30	26	23	21	18	16	15	13	12	11
Z 6 x .075	281	234	198	170	147	129	114	101	91	82	74	67	61	56	52	48	44	41	38	36	33	31
	<i>378</i>	287	224	178	143	117	97	82	69	59	51	44	38	34	30	26	23	21	19	17	15	14
Z 6 x .105	437	364	308	264	229	201	177	157	141	127	115	104	95	87	80	74	69	64	59	55	52	49
	<i>562</i>	428	333	265	213	175	145	121	103	88	76	65	57	50	44	39	35	31	28	25	23	21
Z 8 x .060	316	263	223	191	166	145	128	114	102	92	83	75	69	63	58	54	50	46	43	40	37	35
	<i>571</i>	435	339	269	217	178	147	123	104	89	77	67	58	51	45	40	36	32	29	26	23	21
Z 8 x .075	417	348	294	252	219	191	169	150	134	121	109	100	91	83	77	71	66	61	57	53	49	46
	<i>738</i>	562	437	347	280	229	190	159	135	115	99	86	75	66	58	52	46	41	37	33	30	27
Z 8 x .105	640	534	452	387	336	294	259	231	206	186	168	153	139	128	118	109	101	93	87	81	76	71
	<i>1095</i>	833	649	515	416	340	282	237	200	171	147	128	111	98	86	76	68	61	55	49	45	41
Z 10 x .060	390	325	275	236	205	179	158	140	126	113	102	93	85	78	72	66	61	57	53	49	46	43
	<i>917</i>	698	544	432	348	285	236	198	168	143	123	107	93	82	72	64	57	51	46	41	37	34
Z 10 x .075	570	475	402	345	299	261	231	205	183	165	149	136	124	114	105	97	89	83	77	72	68	63
	<i>1253</i>	954	743	590	476	390	323	271	229	196	168	146	127	112	99	87	78	70	63	57	51	46
Z 10 x .105	871	726	614	527	457	400	353	313	280	252	228	208	190	174	160	148	137	127	118	110	103	97
	<i>1853</i>	1410	1098	872	704	576	478	400	339	289	249	216	188	165	146	129	115	103	93	84	76	69
Z 12 x .060	446	372	315	270	234	205	181	161	144	129	117	106	97	89	82	76	70	65	61	57	53	50
	<i>1330</i>	1012	788	626	505	413	343	287	243	208	179	155	135	119	105	93	83	74	67	60	54	49
Z 12 x .075	624	520	440	378	327	286	253	225	201	181	164	149	136	125	115	106	98	91	85	79	74	69
	<i>1778</i>	1353	1054	836	675	553	458	384	325	278	239	207	181	159	140	124	111	99	89	80	73	66
Z 12 x .105	1056	880	745	639	554	484	428	380	340	306	277	252	230	211	194	179	166	154	143	134	125	117
	<i>2784</i>	2119	1650	1310	1057	865	717	601	509	435	374	324	283	248	219	194	173	155	139	126	114	103

SM 'Z' Section Notes

- 1) Load tables based on use of A653 Structural Quality Steel Sheet Grade 50 (maximum stress 45 Ksi).
- 2) All channels shall have Z-275 galvanizing protection.
- 3) Upper fig. (*Italic*) is maximum load for simple span bending. Lower fig. is maximum load for simple span deflection for L / 180.
- 4) Bending & deflection load table is base on fully supported compression flange.
- 5) Table 'C' is for bending only. Check for shear and web crippling capacities on Table 'B'.
- 6) For deflection loads other than L / 180 multiply lower figure by the following factors:

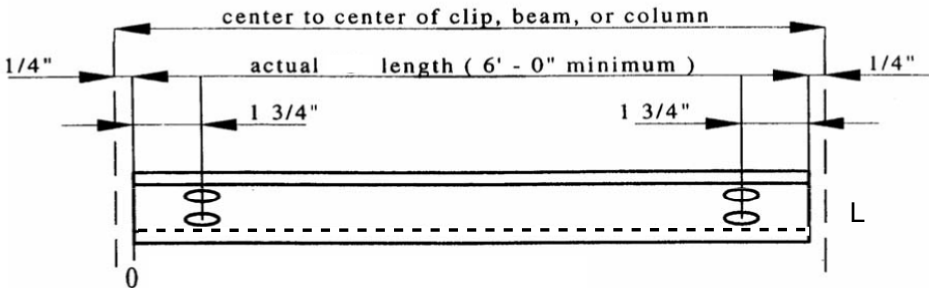
DEFLECTION:	L / 90	L / 240	L / 360
MULTIPLIER:	2.00	0.75	0.50

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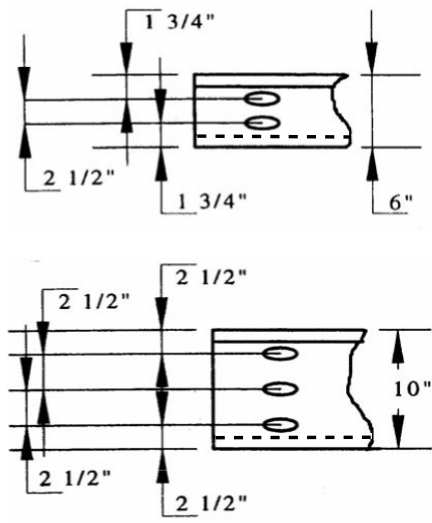
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Table 'D'

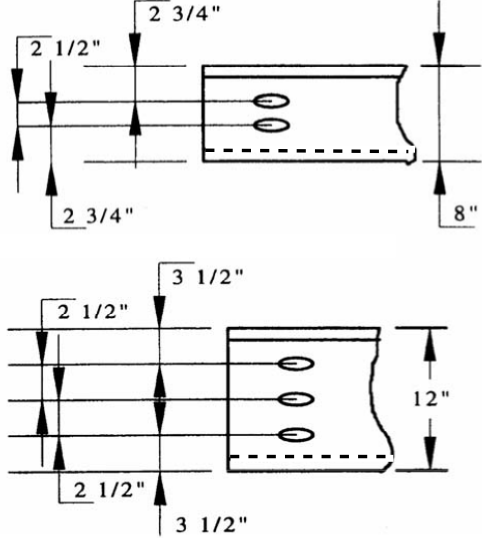
SM 'Z' Sections



L



R



SM 'Z' Section Notes

- NOTES:
1. All holes are **11/16" diameter x 1 1/8"** long for up to a 5/8" diameter bolt.
 2. "Z" may be ordered with standard web holes.
 3. Intermediate web holes (in standard pattern) are available at an additional charge.