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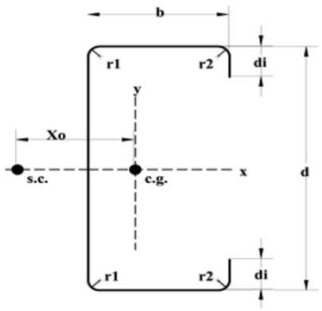
Imperial - L.S.D. **Table 'A'** **SM 'C' Sections**



Full Section Properties for SM 'C' Sections

Designation	Weight	Area	Depth	Flange Width	Stiff'r Depth	Thick-ness	Full Section Properties										
							X - X Axis			Y - Y Axis							
		A	d	b	di	t	Ix	Sx	rx	Iy	Sy	ry	Xo	ro	J	j	Cw
	lb. / ft	in^2	in	in	in	in	in^4	in^3	in	in^4	in^3	in	in	in	10^-6 in^4	in	in^6
C 6 x .060	2.60	0.763	6.00	3.03	0.70	0.060	4.49	1.50	2.43	0.94	0.96	1.11	2.36	3.56	910	3.87	8.10
C 6 x .075	3.24	0.953	6.00	3.03	0.73	0.075	5,57	1.86	2.42	1.17	1.18	1.11	2.36	3.56	1772	3.84	10.06
C 6 x .105	4.53	1.333	6.00	3.03	0.80	0.105	7.69	2.56	2.40	1.64	1.62	1.11	2.38	3.56	4863	3.79	13.92
C 8 x .060	3.00	0.883	8.00	3.03	0.70	0.060	8.72	2.18	3.14	1.03	1.21	1.08	2.12	3.94	1052	4.74	14.73
C 8 x .075	3.74	1.102	8.00	3.03	0.73	0.075	10.83	2.71	3.13	1.29	1.50	1.08	2.13	3.94	2050	4.71	18.28
C 8 x .105	5.24	1.543	8.00	3.03	0.80	0.105	15.01	3.75	3.12	1.80	2.05	1.08	2.14	3.93	5626	4.66	25.16
C 10 x .060	3.41	1.003	10.00	3.03	0.70	0.060	14,71	2.94	3.83	1.10	1.47	1.05	1.93	4.42	1195	5.96	23.86
C 10 x .075	4.25	1.251	10.00	3.03	0.73	0.075	18.29	3.66	3.82	1.38	1.81	1.05	1.94	4.41	2328	5.93	29.55
C 10 x .105	5.96	1.752	10.00	3.03	0.80	0.105	25.42	5.08	3.81	1.93	2.47	1.05	1.95	4.41	6389	5.87	40.61
C 12 x .060	3.82	1.122	12.00	3.03	0.70	0.060	22.71	3.78	4.50	1.16	1.72	1.02	1.78	4.94	1338	7.52	35.68
C 12 x .075	4.76	1.401	12.00	3.03	0.73	0.075	28.26	4.71	4.49	1.45	2.11	1.02	1.78	4.94	2605	7.49	44.15
C 12 x .105	6.67	1.961	12.00	3.03	0.80	0.105	39.33	6.56	4.48	2.03	2.88	1.02	1.79	4.94	7152	7.42	60.57

SM 'C' 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) SeeTable 'B' for Effective Section Properties and Table 'C' for Specified Load / Span Tables.

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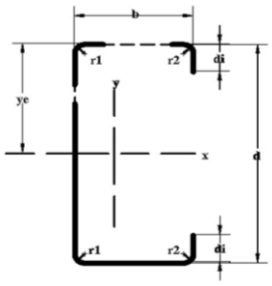
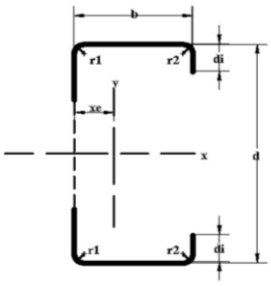
Imperial - L.S.D. **Table 'B'** **SM 'C' Sections**





Effective Section Properties for SM 'C' Sections

Designation	Surf. Area	Effective Section Properties X - X Axis												Effective Section Properties Y - Y Axis					
		Ixe	Sxe	ye	Mrxe	Vrex	Ext Web Crippling Bear. L. in inches			Int Web Crippling Bear. L. in inches				Iye	Sye	xe	ϕMnyo	ϕVny	Lu Lt
							2	4	6	2	4	6							
	ft²/ ft	in^4	in^3	in	K-in	K	K	K	K	K	K	K		in^4	in^3	in	K-in	K	in
C 6 x .060	2.13	3.93	1.21	3.26	54.5	4.2	1.01	1.28	1.50	1.65	1.95	2.19		0.94	0.96	1.24	25.9	7.0	54.7
C 6 x .075	2.13	5.05	1.58	3.20	71.1	7.1	1.56	1.97	2.29	2.70	3.17	3.53		1.17	1.18	1.18	31.9	13.5	54.6
C 6 x .105	2.13	7.48	2.44	3.07	109.8	13.1	2.98	3.73	4.30	5.56	6.43	7.10		1.63	1.62	1.10	43.7	12.4	54.6
C 8 x .060	2.46	7.68	1.78	4.31	80.1	3.1	0.97	1.40	1.44	1.62	1.92	2.15		1.03	1.21	1.23	32.7	7.0	54.2
C 8 x .075	2.46	9.87	2.33	4.23	104.9	6.0	1.50	1.90	2.21	2.66	3.12	3.47		1.29	1.50	1.16	40.5	13.5	54.1
C 8 x .105	2.46	14.59	3.57	4.08	160.7	13.9	2.90	3.62	4.18	5.48	6.35	7.46		1.80	2.05	1.07	55.4	12.4	53.9
C 10 x .060	2.79	12.35	2.21	5.60	99.5	2.4	0.93	1.19	1.62	1.59	1.89	2.11		1.10	1.47	1.22	26.5	7.0	53.7
C 10 x .075	2.79	16.77	3.19	5.26	143.6	4.7	1.46	1.84	2.14	2.62	3.08	3.43		1.38	1.81	1.16	32.6	13.5	53.5
C 10 x .105	2.79	24.71	4.85	5.09	218.3	13.0	2.82	3.53	4.07	5.42	6.27	6.93		1.93	2.47	1.06	44.5	12.4	53.3
C 12 x .060	3.19	18.26	2.63	6.93	118.4	2.0	0.90	1.15	1.34	1.57	1.86	2.08		1.16	1.72	1.22	31.0	7.0	53.1
C 12 x .075	3.19	24.84	3.81	6.52	171.5	3.9	1.41	1.79	2.08	2.59	3.04	3.38		1.45	2.11	1.15	38.0	13.5	53.0
C 12 x .105	3.19	38.27	6.27	6.10	282.2	10.7	2.76	3.45	3.98	5.36	6.21	6.85		2.03	2.88	1.05	51.8	12.4	52.6

SM 'C' 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 'C' 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 'C' divide the factored value by 1.5 to derive Specified values.**

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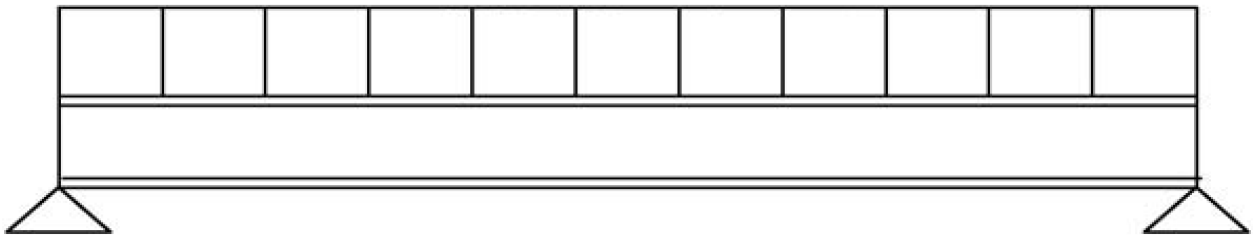
Imperial - L.S.D. **Table 'C'** **SM 'C' Sections**



Specified Bending & Deflection Loads for 'C' 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.)																					
C 6 x .060	*220*	*183*	*155*	*133*	*115*	*101*	*89*	*79*	*71*	*64*	*58*	*52*	*48*	*44*	*40*	*37*	*34*	*32*	*30*	*28*	*26*	*24*
	296	225	176	139	112	92	76	64	54	46	40	34	30	26	23	21	18	16	15	13	12	11
C 6 x .075	*287*	*239*	*202*	*173*	*150*	*132*	*116*	*103*	*92*	*83*	*75*	*68*	*62*	*57*	*53*	*49*	*45*	*42*	*39*	*36*	*34*	*32*
	381	290	226	179	145	118	98	82	70	59	51	44	39	34	30	27	24	21	19	17	16	14
C 6 x .105	*443*	*369*	*312*	*268*	*232*	*203*	*179*	*159*	*143*	*128*	*116*	*106*	*96*	*88*	*81*	*75*	*69*	*65*	*60*	*56*	*52*	*49*
	564	429	334	265	214	175	145	122	103	88	76	66	57	50	44	39	35	31	28	25	23	21
C 8 x .060	*323*	*269*	*228*	*195*	*169*	*148*	*131*	*116*	*104*	*94*	*85*	*77*	*70*	*64*	*59*	*55*	*51*	*47*	*44*	*41*	*38*	*36*
	579	441	343	272	220	180	149	125	106	90	78	67	59	52	46	40	36	32	29	26	24	21
C 8 x .075	*423*	*352*	*298*	*256*	*222*	*194*	*171*	*152*	*136*	*123*	*111*	*101*	*92*	*84*	*78*	*72*	*66*	*62*	*57*	*54*	*50*	*47*
	744	566	441	350	282	231	192	161	136	116	100	87	76	66	59	52	46	41	37	34	30	28
C 8 x .105	*648*	*540*	*457*	*392*	*340*	*297*	*262*	*233*	*209*	*188*	*170*	*154*	*141*	*129*	*119*	*110*	*102*	*94*	*88*	*82*	*77*	*72*
	1099	837	652	517	417	342	283	237	201	172	148	128	112	98	87	77	68	61	55	50	45	41
C 10 x .060	*401*	*334*	*283*	*243*	*210*	*184*	*162*	*144*	*129*	*116*	*105*	*96*	*87*	*80*	*74*	*68*	*63*	*58*	*54*	*51*	*48*	*45*
	931	708	552	438	353	289	240	201	170	145	125	108	95	83	73	65	58	52	47	42	38	34
C 10 x .075	*579*	*482*	*408*	*350*	*303*	*266*	*234*	*208*	*186*	*168*	*152*	*138*	*126*	*116*	*106*	*98*	*91*	*84*	*79*	*73*	*69*	*64*
	1264	962	749	595	480	393	326	273	231	197	170	147	128	113	99	88	79	70	63	57	52	47
C 10 x .105	*880*	*733*	*621*	*532*	*461*	*404*	*356*	*317*	*283*	*255*	*231*	*210*	*192*	*176*	*162*	*149*	*138*	*128*	*119*	*111*	*104*	*98*
	1862	1417	1104	876	707	579	480	402	340	291	250	217	189	166	147	130	116	104	93	84	76	69
C 12 x .060	*477*	*398*	*337*	*289*	*250*	*219*	*193*	*172*	*154*	*138*	*125*	*114*	*104*	*95*	*88*	*81*	*75*	*70*	*65*	*60*	*57*	*53*
	1376	1047	816	647	523	428	355	297	252	215	185	160	140	123	108	96	86	77	69	62	56	51
C 12 x .075	*691*	*576*	*488*	*418*	*362*	*317*	*280*	*249*	*223*	*200*	*181*	*165*	*151*	*138*	*127*	*117*	*109*	*101*	*94*	*88*	*82*	*77*
	1872	1425	1109	881	711	582	482	404	342	292	252	218	190	167	147	131	116	104	94	84	76	69
C 12 x .105	1137	*948*	*803*	*688*	*596*	*522*	*461*	*409*	*366*	*330*	*298*	*271*	*248*	*227*	*209*	*193*	*179*	*166*	*154*	*144*	*135*	*126*
	2884	2195	1709	1357	1095	897	743	623	527	450	388	336	293	257	227	201	179	161	144	130	118	107

SM 'C' 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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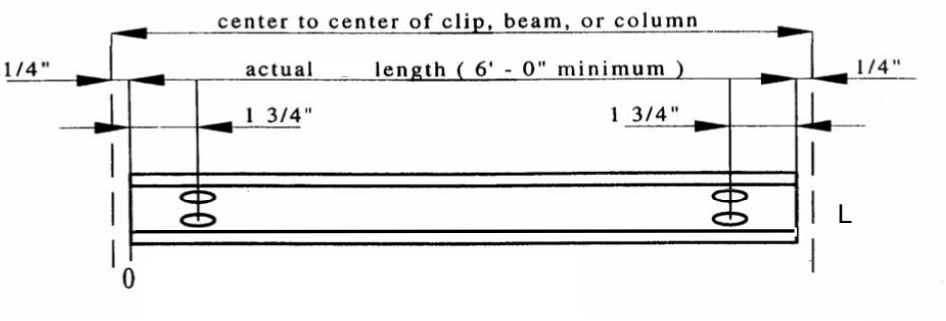
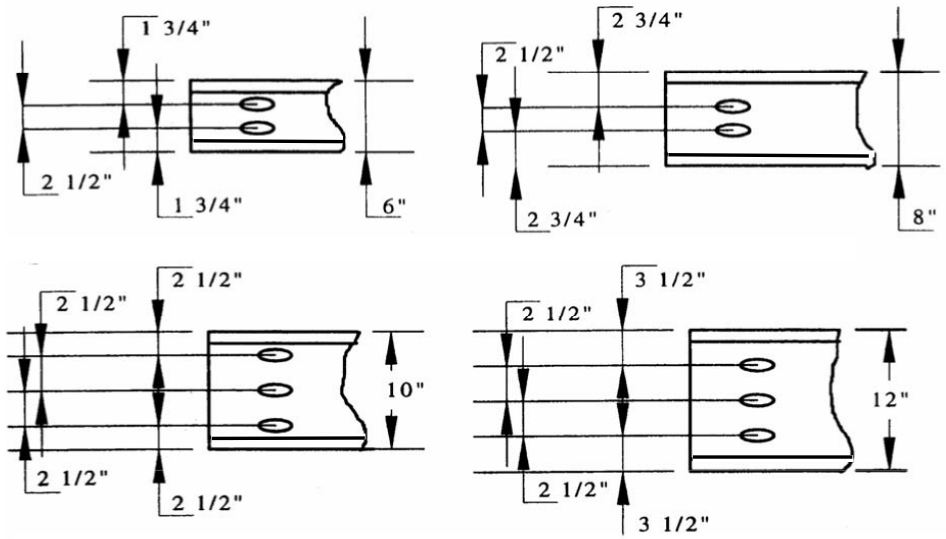
Imperial - L.S.D. **Table 'D'** **SM 'C' Sections**



L



R

SM 'C' Section Notes

NOTES:

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