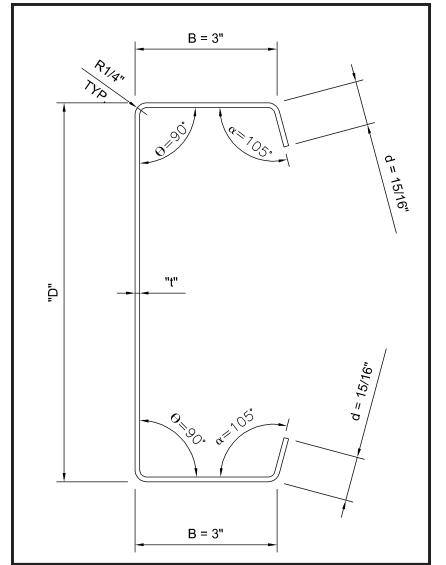


# CHANNELS

Section Size	Weight (lbs/ft)	Full Section Properties														Strength																	
		B	D	T	L	A	I <sub>x</sub>	S <sub>x</sub>	r <sub>x</sub>	I <sub>y</sub>	S <sub>y</sub>	r <sub>y</sub>	α	J	C <sub>w</sub>	Shear		Fully Braced				6' Unbraced			8' Unbraced			10' Unbraced			12' Unbraced		
		in	in	in	in	in <sup>2</sup>	in <sup>4</sup>	in <sup>3</sup>	in	in <sup>4</sup>	in <sup>3</sup>	in	degrees	in <sup>4</sup> (x10 <sup>-4</sup> )	in <sup>6</sup>	φVn (Vert.) k	φVn (Hor.) k	φPn k	φTn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft
6C16	2.617	3	6	0.0600	0.8125	0.770	4.480	1.493	2.413	0.995	0.470	1.137	0.0	9.236	7.555	4.80	6.34	20.07	34.64	4.74	1.76	14.21	4.67	1.73	10.88	4.27	1.57	7.51	3.76	1.36	5.57	3.19	1.12
6C14	3.254	3	6	0.0750	0.8125	0.957	5.538	1.846	2.405	1.223	0.578	1.130	0.0	17.947	9.212	7.58	7.82	27.79	43.07	6.17	2.17	19.63	6.07	2.14	14.46	5.61	1.94	10.08	5.02	1.70	7.49	4.18	1.43
6C13	3.885	3	6	0.0900	0.8125	1.143	6.571	2.190	2.398	1.443	0.682	1.124	0.0	30.853	10.781	10.91	9.27	37.03	51.42	7.79	2.56	25.28	7.68	2.53	18.32	6.99	2.30	12.79	6.12	2.04	9.38	5.15	1.75
6C12	4.509	3	6	0.1050	0.8125	1.326	7.581	2.527	2.391	1.656	0.783	1.117	0.0	48.739	12.266	12.70	10.67	45.75	59.68	9.15	2.94	30.63	8.99	2.90	22.43	8.19	2.66	15.43	7.27	2.38	11.50	6.06	2.08
6C11	5.127	3	6	0.1200	0.8125	1.508	8.566	2.855	2.384	1.861	0.880	1.111	0.0	72.370	13.667	14.43	12.04	54.82	67.85	10.50	3.30	36.14	10.33	3.27	26.13	9.51	3.01	18.34	8.32	2.73	13.90	6.99	2.43
8C16	3.025	3	8	0.0600	0.8125	0.890	8.725	2.181	3.132	1.097	0.487	1.111	0.0	10.676	13.841	3.45	6.34	20.30	40.04	7.02	1.83	15.58	6.88	1.83	13.08	6.26	1.76	9.80	5.46	1.61	7.28	4.54	1.43
8C14	3.764	3	8	0.0750	0.8125	1.107	10.803	2.701	3.124	1.349	0.600	1.104	0.0	20.760	16.916	6.77	7.82	28.23	49.82	9.09	2.25	22.07	8.92	2.25	17.93	8.18	2.16	13.19	7.23	1.99	9.90	5.87	1.78
8C13	4.497	3	8	0.0900	0.8125	1.323	12.841	3.210	3.116	1.593	0.708	1.097	0.0	35.710	19.844	10.91	9.27	37.80	59.52	11.43	2.66	28.48	11.21	2.66	22.75	10.14	2.56	16.93	8.77	2.36	12.82	7.16	2.14
8C12	5.223	3	8	0.1050	0.8125	1.536	14.839	3.710	3.108	1.828	0.813	1.091	0.0	56.460	22.630	14.85	10.67	46.98	69.13	13.44	3.05	35.33	13.12	3.05	27.91	11.88	2.95	21.04	10.41	2.73	16.07	8.38	2.49
8C11	5.943	3	8	0.1200	0.8125	1.748	16.797	4.199	3.100	2.055	0.915	1.084	0.0	83.890	25.276	19.40	12.04	56.67	78.65	15.43	3.43	41.97	15.10	3.43	33.39	13.77	3.33	25.52	11.84	3.10	19.63	9.61	2.85
10C16	3.433	3	10	0.0600	0.8125	1.010	14.749	2.950	3.822	1.175	0.499	1.079	0.0	12.120	22.580	2.70	6.34	20.42	45.44	8.98	1.67	13.74	6.31	1.40	12.05	6.31	1.40	8.76	6.25	1.40	6.45	4.77	1.40
10C14	4.274	3	10	0.0750	0.8125	1.257	18.283	3.657	3.814	1.446	0.615	1.072	0.0	23.570	27.636	5.28	7.82	28.47	56.57	12.39	2.31	23.27	12.12	2.31	19.38	11.05	2.29	15.08	9.68	2.15	11.17	7.71	1.98
10C13	5.109	3	10	0.0900	0.8125	1.503	21.756	4.351	3.805	1.707	0.726	1.066	0.0	40.570	32.467	9.16	9.27	38.22	67.62	15.52	2.72	30.00	15.17	2.72	24.96	13.64	2.71	19.02	11.69	2.55	14.08	9.34	2.36
10C12	5.937	3	10	0.1050	0.8125	1.746	25.169	5.034	3.797	1.959	0.834	1.059	0.0	64.170	37.079	14.59	10.67	47.66	78.58	18.25	3.13	37.61	17.75	3.13	30.42	15.98	3.12	23.11	13.82	2.94	17.11	10.87	2.73
10C11	6.759	3	10	0.1200	0.8125	1.988	28.523	5.705	3.788	2.202	0.938	1.053	0.0	95.410	41.475	19.40	12.04	57.70	89.45	20.97	3.52	44.79	20.42	3.52	36.07	18.49	3.52	27.32	15.70	3.32	20.19	12.43	3.10
12C14	4.784	3	12	0.0750	0.8125	1.407	28.277	4.713	4.483	1.521	0.626	1.040	0.0	26.380	41.608	4.33	7.82	28.63	63.32	15.33	2.35	23.24	15.07	2.35	19.20	14.20	2.36	14.53	12.32	2.25	10.77	9.68	2.10
12C13	5.721	3	12	0.0900	0.8125	1.683	33.677	5.613	4.474	1.796	0.739	1.033	0.0	45.430	48.929	7.50	9.27	38.50	75.72	20.07	2.77	29.98	19.55	2.77	24.50	17.48	2.77	18.36	14.86	2.67	13.65	11.63	2.50
12C12	6.652	3	12	0.1050	0.8125	1.956	38.992	6.499	4.465	2.062	0.849	1.027	0.0	71.890	55.933	11.94	10.67	48.10	88.03	23.60	3.18	37.48	22.86	3.18	29.91	20.48	3.18	22.40	17.51	3.07	16.68	13.50	2.88
12C11	7.575	3	12	0.1200	0.8125	2.228	44.225	7.371	4.456	2.318	0.955	1.020	0.0	106.930	62.627	17.88	12.04	58.35	100.25	27.12	3.58	44.64	26.30	3.58	35.59	23.66	3.58	26.59	19.86	3.46	19.81	15.38	3.26
14C12	7.365	3	14	0.1050	0.8125	2.166	56.728	8.104	5.117	2.144	0.860	0.995	0.0	79.610	79.439	10.11	10.67	48.40	97.48	26.82	3.23	37.09	26.00	3.23	29.24	23.55	3.23	21.59	20.38	3.16	16.16	15.85	2.98
14C11	8.391	3	14	0.1200	0.8125	2.468	64.382	9.198	5.108	2.411	0.968	0.988	0.0	118.450	89.008	15.13	12.04	58.80	111.05	31.84	3.63	44.25	30.90	3.63	34.87	28.04	3.63	25.73	23.71	3.56	19.28	14.44	3.37
16C12	8.079	3	16	0.1050	0.8125	2.376	78.796	9.850	5.758	2.213	0.869	0.965	0.0	87.330	107.790	8.77	10.67	48.62	106.93	31.22	3.26	36.60	30.17	3.26	28.48	27.28	3.26	20.79	23.45	3.22	15.62	18.09	3.06
16C11	9.207	3	16	0.1200	0.8125	2.708	89.475	11.184	5.748	2.488	0.978	0.958	0.0	129.970	120.830	13.11	12.04	59.14	121.85	37.21	3.67	43.73	36.01	3.67	34.02	32.58	3.67	24.84	27.40	3.63	18.70	21.10	3.45



Gauge	Design Thickness (Inches) (No Coating)	Design Thickness (Inches) (G90 Zinc Coating)
16	0.0600"	0.0615"
14	0.0750"	0.0765"
13	0.0900"	0.0915"
12	0.1050"	0.1065"
11	0.1200"	0.1215"

Summary of Channels & Z Section Tables

# Z SECTIONS

Section Size	Weight (lbs/ft)	Full Section Properties														Strength																	
		B	D	T	L	A	I <sub>x</sub>	S <sub>x</sub>	r <sub>x</sub>	I <sub>y</sub>	S <sub>y</sub>	r <sub>y</sub>	α	J	C <sub>w</sub>	Shear		Fully Braced				6' Unbraced			8' Unbraced			10' Unbraced			12' Unbraced		
		in	in	in	in	in <sup>2</sup>	in <sup>4</sup>	in <sup>3</sup>	in	in <sup>4</sup>	in <sup>3</sup>	in	degrees	in <sup>4</sup> (x10 <sup>-4</sup> )	in <sup>6</sup>	φVn (Vert.) k	φVn (Hor.) k	φPn k	φTn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft	φPn k	φMnx k-ft	φMny k-ft
6Z16	2.641	3	6	0.0600	0.750	0.777	4.618	1.539	2.438	1.935	0.553	1.578	-29.938	9.320	10.546	4.80	6.87	19.40	34.96	4.67	1.48	14.01	4.47	1.48	11.19	3.98	1.48	7.87	3.35	1.47	5.71	2.67	1.42
6Z14	3.289	3	6	0.0750	0.750	0.967	5.718	1.906	2.431	2.391	0.685	1.572	-29.915	18.140	12.957	7.58	8.51	26.79	43.53	6.03	1.96	19.86	5.79	1.96	15.10	5.22	1.96	10.27	4.50	1.96	7.34	3.47	1.91
6Z13	3.932	3	6	0.0900	0.750	1.156	6.797	2.266	2.424	2.837	0.814	1.566	-29.891	31.220	15.28	10.91	10.12	35.87	52.04	7.66	2.58	25.53	7.37	2.58	18.76	6.61	2.58	12.53	5.52	2.57	8.70	4.25	2.48
6Z12	4.569	3	6	0.1050	0.750	1.344	7.855	2.618	2.418	3.273	0.941	1.561	-29.867	49.390	17.519	12.70	11.70	45.30	60.48	9.22	3.15	31.54	8.79	3.15	22.42	7.79	3.15	14.44	6.65	3.14	10.03	5.02	3.07
6Z11	5.202	3	6	0.1200	0.750	1.530	8.892	2.964	2.411	3.698	1.066	1.555	-29.843	73.440	19.673	14.43	13.25	54.28	68.85	10.61	3.97	36.91	10.15	3.97	25.34	9.13	3.97	16.31	7.63	3.97	11.32	5.82	3.82
8Z16	3.049	3	8	0.0600	0.750	0.897	8.942	2.235	3.158	1.935	0.553	1.469	-20.830	10.760	20.248	3.45	6.87	19.63	40.36	6.91	1.50	15.56	6.56	1.50	11.90	5.78	1.50	8.61	4.75	1.50	6.31	3.70	1.50
8Z14	3.799	3	8	0.0750	0.750	1.117	11.089	2.772	3.150	2.391	0.685	1.463	-20.795	20.950	24.919	6.77	8.51	27.22	50.28	8.89	1.98	20.82	8.46	1.98	16.37	7.54	1.98	11.39	6.33	1.98	8.35	4.77	1.98
8Z13	4.544	3	8	0.0900	0.750	1.336	13.203	3.301	3.143	2.837	0.814	1.457	-20.760	36.080	29.439	10.91	10.12	36.64	60.14	11.23	2.59	26.90	10.71	2.59	20.57	9.45	2.59	14.30	7.72	2.59	10.46	5.73	2.59
8Z12	5.283	3	8	0.1050	0.750	1.554	15.282	3.821	3.136	3.273	0.941	1.451	-20.725	57.110	33.81	14.85	11.70	46.53	69.93	13.49	3.16	33.75	12.73	3.16	24.94	11.15	3.16	17.28	9.24	3.16	12.48	6.71	3.16
8Z11	6.018	3	8	0.1200																													