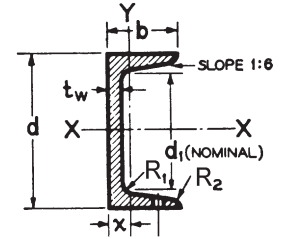


Table 4
ALUMINUM ASSOCIATION STANDARD CHANNELS

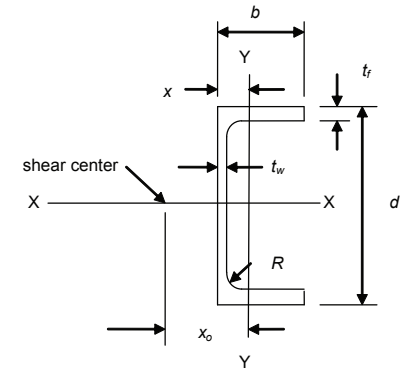
Designation	Depth d in.	Width b in.	Flange Thickness t_f in.	Web Thickness t_w in.	Fillet Radius R in.	Area A in ²	Axis x-x			Axis y-y				x_o in.	C_w in ⁶	J in ⁴	r_o in.
							I_x in ⁴	S_x in ³	r_x in.	I_y in ⁴	S_y in ³	r_y in.	x in.				
CS 2 × 0.577	2.000	1.000	0.130	0.130	0.100	0.490	0.288	0.288	0.766	0.0450	0.0639	0.303	0.296	0.626	0.0324	0.00274	1.03
CS 2 × 1.07	2.000	1.250	0.260	0.170	0.150	0.911	0.546	0.546	0.774	0.139	0.178	0.390	0.471	0.904	0.0894	0.0171	1.25
CS 3 × 1.14	3.000	1.500	0.200	0.130	0.250	0.965	1.41	0.940	1.21	0.217	0.215	0.474	0.494	1.02	0.332	0.00990	1.65
CS 3 × 1.60	3.000	1.750	0.260	0.170	0.250	1.36	1.97	1.31	1.20	0.417	0.368	0.554	0.617	1.25	0.626	0.0246	1.82
CS 4 × 1.74	4.000	2.000	0.230	0.150	0.250	1.48	3.91	1.95	1.63	0.601	0.446	0.638	0.653	1.38	1.65	0.0202	2.22
CS 4 × 2.33	4.000	2.250	0.290	0.190	0.250	1.98	5.21	2.60	1.62	1.02	0.692	0.717	0.775	1.60	2.76	0.0444	2.39
CS 5 × 2.21	5.000	2.250	0.260	0.150	0.300	1.88	7.88	3.15	2.05	0.975	0.642	0.720	0.731	1.54	4.17	0.0314	2.66
CS 5 × 3.09	5.000	2.750	0.320	0.190	0.300	2.63	11.1	4.45	2.06	2.05	1.14	0.884	0.955	1.98	8.70	0.0700	2.99
CS 6 × 2.83	6.000	2.500	0.290	0.170	0.300	2.41	14.4	4.78	2.44	1.53	0.896	0.798	0.788	1.67	9.52	0.0495	3.06
CS 6 × 4.03	6.000	3.250	0.350	0.210	0.300	3.43	21.0	7.01	2.48	3.76	1.76	1.05	1.12	2.34	23.1	0.109	3.57
CS 7 × 3.21	7.000	2.750	0.290	0.170	0.300	2.73	22.1	6.31	2.85	2.10	1.10	0.878	0.842	1.81	17.8	0.0552	3.49
CS 7 × 4.72	7.000	3.500	0.380	0.210	0.300	4.01	33.8	9.65	2.90	5.13	2.23	1.13	1.20	2.52	43.0	0.147	4.01
CS 8 × 4.15	8.000	3.000	0.350	0.190	0.300	3.53	37.4	9.35	3.26	3.25	1.57	0.959	0.934	1.99	36.0	0.102	3.94
CS 8 × 5.79	8.000	3.750	0.410	0.250	0.350	4.92	52.7	13.2	3.27	7.12	2.82	1.20	1.22	2.59	78.5	0.210	4.34
CS 9 × 4.98	9.000	3.250	0.350	0.230	0.350	4.24	54.4	12.1	3.58	4.40	1.89	1.02	0.928	2.02	62.8	0.127	4.24
CS 9 × 6.97	9.000	4.000	0.440	0.290	0.350	5.93	78.3	17.4	3.63	9.60	3.49	1.27	1.25	2.68	135	0.293	4.69
CS 10 × 6.14	10.000	3.500	0.410	0.250	0.350	5.22	83.2	16.6	3.99	6.33	2.55	1.10	1.02	2.20	111	0.209	4.69
CS 10 × 8.36	10.000	4.250	0.500	0.310	0.400	7.11	116	23.2	4.04	13.0	4.46	1.35	1.34	2.84	226	0.444	5.12
CS 12 × 8.27	12.000	4.000	0.470	0.290	0.400	7.04	160	26.6	4.77	11.0	3.85	1.25	1.14	2.47	281	0.367	5.51
CS 12 × 11.8	12.000	5.000	0.620	0.350	0.450	10.1	240	39.9	4.88	25.7	7.59	1.60	1.61	3.40	639	0.948	6.16
CS 14 × 13.9 ¹	14.000	6.000	0.640	0.320	0.450	11.8	401	57.3	5.82	44.7	11.2	1.94	2.00	4.25	1510	1.19	7.46

1. New shape; check availability with suppliers.
2. Tolerances for extruded shapes are given in *Aluminum Standards and Data*.



**Table 5
AMERICAN STANDARD CHANNELS**

Designation	Depth <i>d</i> in.	Width <i>b</i> in.	Flange Tip Thickness <i>t_f</i> in.	Average Flange Thickness <i>t</i> in.	Web Thickness <i>t_w</i> in.	Fillet Radius <i>R₁</i> in.	Tip Radius <i>R₂</i> in.	<i>d₁</i> in.	Area <i>A</i> in ²	Axis x-x			Axis y-y			y-axis Location <i>x</i> in.
										<i>I_x</i> in ⁴	<i>S_x</i> in ³	<i>r_x</i> in.	<i>I_y</i> in ⁴	<i>S_y</i> in ³	<i>r_y</i> in.	
C 2 × 1.22	2.000	1.410	0.170	0.273	0.170	0.270	0.100	0.75	1.04	0.622	0.622	0.774	0.172	0.188	0.407	0.49
C 3 × 1.42	3.000	1.410	0.170	0.273	0.170	0.270	0.100	1.75	1.21	1.66	1.10	1.17	0.20	0.20	0.40	0.44
C 3 × 1.73	3.000	1.498	0.170	0.273	0.258	0.270	0.100	1.75	1.47	1.85	1.24	1.12	0.21	0.21	0.41	0.44
C 3 × 2.07	3.000	1.596	0.170	0.273	0.356	0.270	0.100	1.75	1.76	2.07	1.38	1.08	0.31	0.27	0.42	0.46
C 4 × 1.85	4.000	1.580	0.180	0.297	0.180	0.280	0.110	2.75	1.57	3.83	1.92	1.56	0.32	0.28	0.45	0.46
C 4 × 2.16	4.000	1.647	0.180	0.297	0.247	0.280	0.110	2.75	1.84	4.19	2.10	1.51	0.37	0.31	0.45	0.45
C 4 × 2.50	4.000	1.720	0.180	0.297	0.320	0.280	0.110	2.75	2.13	4.58	2.29	1.47	0.43	0.34	0.45	0.46
C 5 × 2.32	5.000	1.750	0.190	0.320	0.190	0.290	0.110	3.75	1.97	7.49	3.00	1.95	0.48	0.38	0.49	0.48
C 5 × 3.11	5.000	1.885	0.190	0.320	0.325	0.290	0.110	3.75	2.64	8.90	3.56	1.83	0.63	0.45	0.49	0.48
C 5 × 3.97	5.000	2.032	0.190	0.320	0.472	0.290	0.110	3.75	3.38	10.4	4.17	1.76	0.81	0.53	0.49	0.51
C 6 × 2.83	6.000	1.920	0.200	0.343	0.200	0.300	0.120	4.50	2.40	13.1	4.37	2.34	0.69	0.49	0.54	0.51
C 6 × 3.00	6.000	1.945	0.200	0.343	0.225	0.300	0.120	4.50	2.55	13.6	4.52	2.31	0.73	0.51	0.54	0.51
C 6 × 3.63	6.000	2.034	0.200	0.343	0.314	0.300	0.120	4.50	3.09	15.2	5.06	2.22	0.87	0.56	0.50	0.50
C 6 × 4.50	6.000	2.157	0.200	0.343	0.438	0.300	0.120	4.50	3.83	17.4	5.80	2.13	1.05	0.64	0.52	0.51
C 7 × 3.54	7.000	2.110	0.210	0.367	0.230	0.310	0.130	5.50	3.01	21.8	6.24	2.69	1.01	0.64	0.58	0.54
C 7 × 4.23	7.000	2.194	0.210	0.367	0.314	0.310	0.130	5.50	3.60	24.2	6.93	2.60	1.17	0.70	0.57	0.52
C 7 × 5.10	7.000	2.299	0.210	0.367	0.419	0.310	0.130	5.50	4.33	27.2	7.78	2.51	1.38	0.78	0.56	0.53
C 7 × 5.96	7.000	2.404	0.210	0.367	0.524	0.310	0.130	5.50	5.07	30.3	8.64	2.44	1.59	0.86	0.56	0.55



**Table 7
CANADIAN CHANNELS**

Designation	Depth d in.	Width b in.	Flange Thickness t_f in.	Web Thickness t_w in.	Fillet Radius R in.	Area A in ²	Axis x-x			Axis y-y				x_o in.	C_w in ⁶	J in ⁴	r_o in.
							I_x in ⁴	S_x in ³	r_x in.	I_y in ⁴	S_y in ³	r_y in.	x in.				
CS 2 × 0.706	2.000	1.500	0.125	0.125	0.125	0.600	0.391	0.391	0.807	0.137	0.136	0.477	0.493	1.06	0.0938	0.0031	1.42
CS 2.25 × 0.86	2.250	1.000	0.188	0.188	0.062	0.730	0.505	0.449	0.832	0.062	0.090	0.292	0.303	0.605	0.0589	0.0086	1.07
CS 3 × 1.48	3.000	1.500	0.250	0.188	0.312	1.26	1.72	1.15	1.17	0.268	0.265	0.461	0.489	0.981	0.415	0.021	1.59
CS 3 × 1.85	3.000	1.500	0.312	0.250	0.312	1.57	2.03	1.35	1.14	0.321	0.322	0.452	0.502	0.971	0.501	0.043	1.56
CS 3 × 2.18	3.000	2.000	0.312	0.250	0.188	1.86	2.56	1.71	1.17	0.730	0.568	0.627	0.714	1.44	1.09	0.053	1.96
CS 4 × 1.90	4.000	1.620	0.281	0.188	0.375	1.62	3.95	1.98	1.56	0.396	0.355	0.495	0.504	1.01	1.11	0.032	1.92
CS 4 × 2.24	4.000	1.750	0.281	0.250	0.375	1.90	4.41	2.21	1.52	0.514	0.417	0.520	0.519	1.05	1.49	0.044	1.92
CS 4 × 2.02	4.000	2.000	0.250	0.188	0.375	1.72	4.36	2.18	1.59	0.667	0.486	0.623	0.627	1.31	1.84	0.029	2.15
CS 4 × 2.53	4.000	2.000	0.312	0.250	0.375	2.15	5.21	2.60	1.56	0.810	0.595	0.613	0.638	1.30	2.25	0.058	2.12
CS 4 × 2.90	4.000	2.500	0.312	0.250	0.375	2.46	6.27	3.14	1.60	1.52	0.919	0.786	0.842	1.74	4.13	0.068	2.49
CS 5 × 2.51	5.000	2.000	0.312	0.188	0.375	2.13	8.45	3.38	1.99	0.832	0.607	0.625	0.630	1.29	3.59	0.050	2.45
CS 5 × 3.11	5.000	2.000	0.343	0.281	0.375	2.64	9.59	3.84	1.90	0.942	0.669	0.597	0.592	1.20	4.27	0.086	2.33
CS 5 × 3.05	5.000	2.500	0.312	0.218	0.437	2.60	10.5	4.18	2.01	1.60	0.944	0.786	0.801	1.67	6.86	0.066	2.73
CS 5 × 3.55	5.000	2.500	0.375	0.250	0.437	3.02	12.0	4.79	1.99	1.86	1.11	0.784	0.830	1.69	7.89	0.110	2.73
CS 6 × 3.60	6.000	2.000	0.375	0.281	0.437	3.06	15.8	5.26	2.27	1.06	0.740	0.588	0.569	1.13	7.04	0.109	2.61
CS 6 × 3.51	6.000	2.500	0.312	0.250	0.437	2.99	16.4	5.47	2.34	1.74	0.978	0.764	0.719	1.52	11.2	0.079	2.90
CS 6 × 6.42	6.000	3.500	0.500	0.375	0.437	5.46	30.9	10.3	2.38	6.62	2.87	1.10	1.19	2.44	40.3	0.380	3.58
CS 7 × 3.90	7.000	2.500	0.375	0.218	0.437	3.32	25.8	7.37	2.79	2.02	1.16	0.781	0.759	1.57	17.3	0.109	3.29
CS 7 × 4.61	7.000	3.000	0.375	0.250	0.500	3.92	30.8	8.79	2.80	3.47	1.67	0.941	0.921	1.94	29.5	0.138	3.53
CS 8 × 4.65	8.000	2.750	0.375	0.250	0.437	3.96	39.0	9.74	3.14	2.83	1.44	0.846	0.781	1.65	32.2	0.134	3.65
CS 8 × 5.56	8.000	3.000	0.437	0.281	0.500	4.73	47.3	11.8	3.16	4.10	1.95	0.931	0.900	1.87	46.1	0.220	3.79
CS 10 × 6.23	10.000	3.000	0.437	0.281	0.500	5.29	79.9	16.0	3.89	4.39	2.01	0.911	0.819	1.73	79.3	0.234	4.35
CS 10 × 7.58	10.000	3.500	0.500	0.312	0.562	6.44	101	20.1	3.95	7.59	3.07	1.09	1.03	2.15	134	0.383	4.63
CS 10 × 19.0	10.000	4.000	1.250	0.812	0.500	16.2	223	44.5	3.71	23.3	8.94	1.20	1.39	2.49	402	6.547	4.62
CS 12 × 10.3	12.000	4.000	0.562	0.375	0.625	8.74	192	32.0	4.69	13.1	4.56	1.22	1.13	2.38	338	0.665	5.40

1. Users are encouraged to check availability with suppliers.
 2. Tolerances for extruded shapes are given in *Aluminum Standards and Data*.

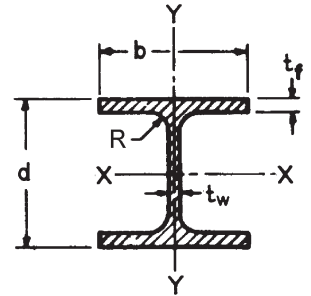


Table 8
ALUMINUM ASSOCIATION STANDARD I-BEAMS

Designation	Depth <i>d</i> in.	Width <i>b</i> in.	Flange Thickness <i>t_f</i> in.	Web Thickness <i>t_w</i> in.	Fillet Radius <i>R</i> in.	Area <i>A</i> in ²	Axis x-x			Axis y-y			<i>C_w</i> in ⁶	<i>J</i> in ⁴	<i>r_o</i> in.
							<i>I_x</i> in ⁴	<i>S_x</i> in ³	<i>r_x</i> in.	<i>I_y</i> in ⁴	<i>S_y</i> in ³	<i>r_y</i> in.			
I 3 × 1.64	3.000	2.500	0.200	0.130	0.250	1.39	2.24	1.49	1.27	0.522	0.418	0.613	1.02	0.0192	1.41
I 3 × 2.03	3.000	2.500	0.260	0.150	0.250	1.73	2.71	1.81	1.25	0.679	0.543	0.627	1.27	0.0374	1.40
I 4 × 2.31	4.000	3.000	0.230	0.150	0.250	1.96	5.62	2.81	1.69	1.04	0.691	0.727	3.68	0.0333	1.84
I 4 × 2.79	4.000	3.000	0.290	0.170	0.250	2.38	6.71	3.36	1.68	1.31	0.872	0.742	4.50	0.0608	1.84
I 5 × 3.70	5.000	3.500	0.320	0.190	0.300	3.15	13.9	5.58	2.11	2.29	1.31	0.853	12.5	0.0984	2.27
I 6 × 4.03	6.000	4.000	0.290	0.190	0.300	3.43	22.0	7.33	2.53	3.10	1.55	0.951	25.3	0.0888	2.71
I 6 × 4.69	6.000	4.000	0.350	0.210	0.300	3.99	25.5	8.50	2.53	3.74	1.87	0.968	29.8	0.145	2.71
I 7 × 5.80	7.000	4.500	0.380	0.230	0.300	4.93	42.9	12.3	2.95	5.78	2.57	1.08	63.3	0.206	3.14
I 8 × 6.18	8.000	5.000	0.350	0.230	0.300	5.26	59.7	14.9	3.37	7.30	2.92	1.18	107	0.188	3.57
I 8 × 7.02	8.000	5.000	0.410	0.250	0.300	5.97	67.8	16.9	3.37	8.55	3.42	1.20	123	0.286	3.57
I 9 × 8.36	9.000	5.500	0.440	0.270	0.300	7.11	102	22.7	3.79	12.2	4.44	1.31	224	0.386	4.01
I 10 × 8.65	10.000	6.000	0.410	0.250	0.400	7.35	132	26.4	4.24	14.8	4.93	1.42	340	0.360	4.47
I 10 × 10.3	10.000	6.000	0.500	0.290	0.400	8.75	156	31.2	4.22	18.0	6.01	1.44	407	0.620	4.46
I 12 × 11.7	12.000	7.000	0.470	0.290	0.400	9.92	256	42.6	5.07	26.9	7.69	1.65	894	0.621	5.33
I 12 × 14.3	12.000	7.000	0.620	0.310	0.400	12.2	317	52.9	5.11	35.5	10.1	1.71	1149	1.26	5.39
I 14 × 16.0 ¹	14.000	8.000	0.600	0.300	0.400	14.2	489	69.9	6.00	51.2	12.8	1.94	2300	1.31	6.31

1. New shape; check availability with suppliers.
2. Tolerances for extruded shapes are given in *Aluminum Standards and Data*.