

# COLD-FORMED Z-SECTIONS, UNCOATED

Effective Properties

$F_y = 345 \text{ MPa}$

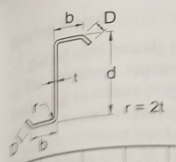


Designation	Mass kg/m	Gross Area mm <sup>2</sup>	Effective Section Properties X-X Axis		$M_x$ kN-m	$I_{yy}$ mm <sup>4</sup>	$M_y$ kN-m	$I_{xx}$ mm <sup>4</sup>	$I_{yy}$ mm <sup>4</sup>
			$I_{xx}$ mm <sup>4</sup>	$S_{xx}$ mm <sup>3</sup>					
356Z76-328M	14.5	1844	36.8	176	52.9	525	42.5	94.3	1.557
356Z76-290M	12.9	1646	27.5	147	45.8	554	35.9	85.8	1.559
356Z76-254M	11.4	1445	24.0	122	37.8	595	29.6	43.8	1.562
356Z76-218M	9.76	1244	20.5	95.3	29.6	646	23.6	27.4	1.564
356Z76-181M	8.17	1040	16.9	72.8	22.6	711	18.1	15.7	1.567
305Z76-326M	13.1	1670	21.2	142	44.0	499	35.8	109	1.371
305Z76-290M	11.7	1491	19.1	126	39.1	532	30.4	77.5	1.373
305Z76-254M	10.3	1310	16.9	108	33.6	571	25.1	51.5	1.375
305Z76-218M	8.85	1127	14.6	89.2	27.7	621	20.2	32.2	1.377
305Z76-181M	7.41	943	12.3	67.1	20.8	684	15.5	18.5	1.379
254Z76-326M	11.7	1496	13.7	110	34.2	476	29.0	109	1.408
254Z76-290M	10.5	1336	12.3	98.0	30.4	507	24.7	86.2	1.409
254Z76-254M	9.22	1174	10.9	84.0	26.1	545	20.6	62.5	1.410
254Z76-218M	7.94	1011	9.49	69.1	21.5	592	16.6	39.0	1.412
254Z76-181M	6.65	847	8.01	56.1	17.4	653	12.8	22.3	1.413
229Z76-326M	11.1	1409	10.7	95.4	29.6	463	25.6	109	1.429
229Z76-290M	9.88	1258	9.61	84.9	26.4	494	21.9	86.2	1.429
229Z76-254M	8.69	1107	8.52	72.8	22.6	531	18.3	66.0	1.430
229Z76-218M	7.48	953	7.40	59.8	18.6	577	14.8	43.6	1.431
229Z76-181M	6.27	798	6.25	48.4	15.0	636	11.4	25.0	1.432
203Z76-326M	10.4	1322	8.08	81.4	25.3	450	22.3	104	1.452
203Z76-290M	9.27	1181	7.29	72.5	22.5	479	19.1	86.2	1.451
203Z76-254M	8.15	1039	6.47	62.2	19.3	515	16.0	66.0	1.451
203Z76-218M	7.03	895	5.62	51.0	15.8	560	12.9	48.5	1.451
203Z76-181M	5.89	750	4.75	41.2	12.8	617	10.1	28.3	1.451
203Z76-144M	4.73	603	3.74	32.5	10.1	695	7.40	14.3	1.452
152Z76-326M	9.01	1147	4.14	55.7	17.3	418	15.8	74.9	1.507
152Z76-290M	8.06	1026	3.74	49.7	15.4	446	13.6	67.7	1.503
152Z76-254M	7.09	903	3.32	42.6	13.2	479	11.5	60.2	1.500
152Z76-218M	6.12	779	2.89	34.8	10.8	521	9.40	48.5	1.498
152Z76-181M	5.13	653	2.45	28.1	8.70	574	7.30	33.7	1.498
152Z76-144M	4.13	526	1.93	22.1	6.90	646	5.40	19.4	1.495

Designation Example: 229Z76-290M, where 229 = section depth (mm); Z = Z-section; 76 = flange width (mm); 290 = minimum base steel thickness x 100 (mm); M = metric designation

# COLD-FORMED Z-SECTIONS, UNCOATED

Dimensions and Gross Properties



Depth D	Flange Width b	Stiff Depth t	Thickness t	Gross Section Properties										
				X-X Axis				Y-Y Axis						
				$S_x$	$r_x$	$S_y$	$r_y$	$I_{xx}$	$I_{yy}$	$I_{xy}$	$C_u$			
356	76	24	3.43	178	131	21.7	32.5	5.41	1.06	32.7	23.3	95.0	7.23	47.2
356	76	24	3.05	160	131	19.5	32.7	4.85	0.801	29.3	23.4	90.0	5.10	42.5
356	76	24	2.67	141	132	17.2	34.5	4.29	0.801	25.8	23.5	90.0	3.43	37.7
356	76	24	2.29	122	132	14.9	33.0	3.71	0.896	22.3	23.7	90.0	2.17	32.7
356	76	24	1.91	102	132	12.6	33.1	3.12	0.588	18.8	23.8	90.0	1.28	27.8
305	76	24	3.43	143	114	21.7	34.2	4.81	0.937	22.9	23.7	77.6	6.55	33.6
305	76	24	3.05	129	115	19.5	34.3	4.14	0.845	20.5	23.8	77.6	4.62	30.3
305	76	24	2.67	114	115	17.2	34.5	3.85	0.750	18.1	23.9	77.5	3.11	26.8
305	76	24	2.29	98.1	115	14.9	34.6	3.16	0.653	15.7	24.1	77.5	1.96	23.3
305	76	24	1.91	82.5	116	12.6	34.8	2.66	0.552	13.2	24.2	77.5	1.14	19.7
254	76	24	3.43	111	97.2	21.7	36.1	3.81	0.858	15.2	24.0	74.0	5.86	22.4
254	76	24	3.05	99.9	97.5	19.5	36.3	3.42	0.775	13.7	24.1	74.0	4.14	20.2
254	76	24	2.67	88.3	97.7	17.2	36.4	3.02	0.688	12.1	24.2	74.0	2.78	17.9
254	76	24	2.29	76.4	98.0	14.9	36.6	2.62	0.599	10.5	24.3	74.0	1.76	15.6
254	76	24	1.91	64.3	98.2	12.6	36.7	2.20	0.507	8.80	24.5	74.0	1.02	13.2
229	76	24	3.43	96.4	88.4	21.7	37.2	3.41	0.811	12.2	24.0	71.5	5.52	17.7
229	76	24	3.05	86.6	88.7	19.5	37.4	3.07	0.732	10.9	24.1	71.5	3.90	16.0
229	76	24	2.67	76.5	88.9	17.2	37.5	2.71	0.651	9.66	24.3	71.5	2.62	14.2
229	76	24	2.29	66.3	89.2	14.9	37.7	2.35	0.567	8.36	24.4	71.5	1.66	12.3
229	76	24	1.91	55.8	89.4	12.6	37.8	1.97	0.480	7.04	24.5	71.5	0.966	10.4
203	76	24	3.43	82.2	79.5	21.7	38.4	3.02	0.756	9.55	23.9	68.3	5.18	13.7
203	76	24	3.05	73.9	79.7	19.5	38.6	2.71	0.683	8.58	24.1	68.4	3.66	12.3
203	76	24	2.67	65.4	80.0	17.2	38.7	2.39	0.608	7.59	24.2	68.4	2.48	10.9
203	76	24	2.29	56.7	80.2	14.9	38.9	2.07	0.529	6.58	24.3	68.4	1.56	9.51
203	76	24	1.91	47.7	80.4	12.6	39.0	1.75	0.448	5.54	24.5	68.4	0.907	8.04
203	76	24	1.52	38.6	80.6	10.2	39.1	1.41	0.364	4.48	24.6	68.4	0.487	6.53
152	76	24	3.43	56.1	61.0	21.7	41.3	2.22	0.810	5.62	23.1	59.3	4.50	7.20
152	76	24	3.05	50.5	61.2	19.5	41.4	1.99	0.552	5.05	23.2	59.3	3.19	6.51
152	76	24	2.67	44.8	61.5	17.2	41.5	1.78	0.492	4.46	23.3	59.3	2.14	5.79
152	76	24	2.29	38.9	61.7	14.9	41.7	1.53	0.430	3.89	23.5	59.3	1.36	5.04
152	76	24	1.91	32.8	61.9	12.6	41.8	1.29	0.364	3.28	23.8	59.3	0.790	4.27
152	76	24	1.52	28.8	62.1	10.2	41.9	1.04	0.297	2.65	23.8	59.3	0.407	3.47