

CONICAL COMPRESSION SPRINGS

Stock sizes in stainless steel

SPEC conical springs are cone shaped compression springs designed to provide a near constant spring rate and a solid height lower than a normal spring. Each spring features a variable pitch to achieve the constant spring rate and coils which nest during deflection to provide a solid height approximately equal to two wire diameters.

All springs are manufactured from stainless steel for use in a multitude of environments.

Material

Stainless Type 302 per ASTM A313 or AMS 5688 spring temper. (Chemical and physical only.)

Stainless steel springs are not recommended for applications where the temperature exceeds 500°F (260°C)

Certificate of chemical analysis available at additional charge.

Finish

Standard finish is that of the normal wire.

Direction of Helix

Right hand.

Ends

Squared ends not ground.

Spring Rate

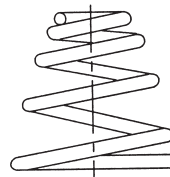
The spring rate is linear due to the variable pitch.

Coils

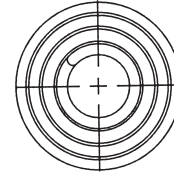
Springs are designed to permit active coils to nest within each other. This provides a solid height of approximately two wire diameters.

Solid Height

Due to coil nesting, the solid height is approximately equal to two wire diameters.



SIDE VIEW



TOP VIEW

CONICAL COMPRESSION SPRINGS

Catalog Number	Outside Diameter Large End		Outside Diameter Small End		Wire Diameter		Free Height Approximate		Load at 50% of Free Length		Load at Solid Approximate		Spring Rate	
	in	mm	in	mm	in	mm	in	mm	lb	N	lb	N	lb/in	N/mm
A0360-029-0250-S	0.360	9.14	0.125	3.18	0.029	0.74	0.250	6.35	3.45	15.35	5.29	23.53	27.58	4.83
A0420-029-0375-S	0.420	10.67	0.156	3.96	0.029	0.74	0.375	9.53	2.50	11.12	4.23	18.82	13.35	2.34
A0420-029-0312-S	0.420	10.67	0.187	4.75	0.029	0.74	0.312	7.92	2.26	10.05	3.68	16.37	14.48	2.54
A0420-029-0250-S	0.420	10.67	0.218	5.54	0.029	0.74	0.250	6.35	2.04	9.07	3.14	13.97	16.38	2.87
A0420-032-0312-S	0.420	10.67	0.156	3.96	0.032	0.81	0.312	7.92	3.63	16.15	5.77	25.66	23.25	4.07
A0420-032-0250-S	0.420	10.67	0.187	4.75	0.032	0.81	0.250	6.35	3.19	14.19	4.74	21.08	25.49	4.46
A0420-035-0250-S	0.420	10.67	0.187	4.75	0.035	0.89	0.250	6.35	5.09	22.64	7.33	32.60	40.80	7.14
A0480-029-0625-S	0.480	12.19	0.187	4.75	0.029	0.74	0.625	15.88	2.15	9.56	3.90	17.35	6.88	1.20
A0480-029-0500-S	0.480	12.19	0.218	5.54	0.029	0.74	0.500	12.70	1.93	8.58	3.40	15.12	7.70	1.35
A0480-029-0375-S	0.480	12.19	0.250	6.35	0.029	0.74	0.375	9.53	1.59	7.07	2.70	12.01	8.50	1.49
A0480-029-0312-S	0.480	12.19	0.281	7.14	0.029	0.74	0.312	7.92	1.53	6.81	2.49	11.08	9.79	1.71
A0480-032-0625-S	0.480	12.19	0.156	3.96	0.032	0.81	0.625	15.88	3.42	15.21	6.13	27.27	10.93	1.91
A0480-032-0500-S	0.480	12.19	0.187	4.75	0.032	0.81	0.500	12.70	2.88	12.81	5.02	22.33	11.51	2.02
A0480-032-0375-S	0.480	12.19	0.218	5.54	0.032	0.81	0.375	9.53	2.56	11.39	4.24	18.86	13.63	2.39
A0480-032-0312-S	0.480	12.19	0.250	6.35	0.032	0.81	0.312	7.92	2.37	10.54	3.78	16.81	15.21	2.66
A0480-035-0375-S	0.480	12.19	0.187	4.75	0.035	0.89	0.375	9.53	3.92	17.44	6.37	28.33	20.91	3.66
A0480-035-0312-S	0.480	12.19	0.218	5.54	0.035	0.89	0.312	7.92	3.48	15.48	5.39	23.97	22.26	3.90
A0480-038-0312-S	0.480	12.19	0.187	4.75	0.038	0.97	0.312	7.92	5.02	22.33	7.60	33.80	32.13	5.63
A0480-038-0250-S	0.480	12.19	0.218	5.54	0.038	0.97	0.250	6.35	4.75	21.13	6.61	29.40	38.02	6.66
A0600-026-1250-S	0.600	15.24	0.312	7.92	0.026	0.66	1.250	31.75	1.00	4.45	1.92	8.54	1.61	0.28
A0600-026-1000-S	0.600	15.24	0.343	8.71	0.026	0.66	1.000	25.40	0.84	3.74	1.58	7.03	1.67	0.29
A0600-026-0750-S	0.600	15.24	0.375	9.53	0.026	0.66	0.750	19.05	0.73	3.25	1.36	6.05	1.94	0.34
A0600-029-1250-S	0.600	15.24	0.250	6.35	0.029	0.74	1.250	31.75	1.56	6.94	2.97	13.21	2.49	0.44
A0600-029-1000-S	0.600	15.24	0.281	7.14	0.029	0.74	1.000	25.40	1.39	6.18	2.61	11.61	2.77	0.49
A0600-029-0750-S	0.600	15.24	0.343	8.71	0.029	0.74	0.750	19.05	1.18	5.25	2.19	9.74	3.16	0.55
A0600-029-0625-S	0.600	15.24	0.375	9.53	0.029	0.74	0.625	15.88	1.12	4.98	2.03	9.03	3.57	0.63
A0600-032-0750-S	0.600	15.24	0.281	7.14	0.032	0.81	0.750	19.05	1.80	8.01	3.30	14.68	4.81	0.84
A0600-032-0625-S	0.600	15.24	0.343	8.71	0.032	0.81	0.625	15.88	1.64	7.29	2.95	13.12	5.25	0.92
A0600-032-0500-S	0.600	15.24	0.375	9.53	0.032	0.81	0.500	12.70	1.53	6.81	2.67	11.88	6.13	1.07
A0600-035-0750-S	0.600	15.24	0.218	5.54	0.035	0.89	0.750	19.05	2.72	12.10	4.93	21.93	7.25	1.27
A0600-035-0625-S	0.600	15.24	0.281	7.14	0.035	0.89	0.625	15.88	2.41	10.72	4.28	19.04	7.70	1.35
A0600-035-0500-S	0.600	15.24	0.312	7.92	0.035	0.89	0.500	12.70	2.16	9.61	3.72	16.55	8.64	1.51
A0600-038-0625-S	0.600	15.24	0.250	6.35	0.038	0.97	0.625	15.88	3.57	15.88	6.27	27.89	11.42	2.00
A0600-038-0500-S	0.600	15.24	0.281	7.14	0.038	0.97	0.500	12.70	3.22	14.32	5.45	24.24	12.88	2.26
A0600-038-0375-S	0.600	15.24	0.312	7.92	0.038	0.97	0.375	9.53	2.62	11.65	4.18	18.59	13.99	2.45
A0600-040-0625-S	0.600	15.24	0.218	5.54	0.040	1.02	0.625	15.88	4.56	20.28	7.95	35.36	14.59	2.55

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Catalog Number	Outside Diameter Large End		Outside Diameter Small End		Wire Diameter		Free Height Approximate		Load at 50% of Free Length		Load at Solid Approximate		Spring Rate	
	in	mm	in	mm	in	mm	in	mm	lb	N	lb	N	lb/in	N/mm
	A0600-040-0500-S	0.600	15.24	0.250	6.35	0.040	1.02	0.500	12.70	4.07	18.10	6.83	30.38	16.28
A0600-040-0375-S	0.600	15.24	0.312	7.92	0.040	1.02	0.375	9.53	3.56	15.83	5.61	24.95	18.98	3.32
A0600-042-0500-S	0.600	15.24	0.218	5.54	0.042	1.07	0.500	12.70	5.13	22.82	8.53	37.94	20.49	3.59
A0600-042-0375-S	0.600	15.24	0.281	7.14	0.042	1.07	0.375	9.53	4.35	19.35	6.75	30.02	23.19	4.06
A0600-045-0375-S	0.600	15.24	0.250	6.35	0.045	1.14	0.375	9.53	6.09	27.09	9.25	41.14	32.49	5.69
A0720-035-1250-S	0.720	18.29	0.343	8.71	0.035	0.89	1.250	31.75	2.04	9.07	3.86	17.17	3.27	0.57
A0720-035-1000-S	0.720	18.29	0.375	9.53	0.035	0.89	1.000	25.40	1.80	8.01	3.34	14.86	3.59	0.63
A0720-035-0750-S	0.720	18.29	0.438	11.13	0.035	0.89	0.750	19.05	1.62	7.21	2.94	13.08	4.33	0.76
A0720-038-1250-S	0.720	18.29	0.281	7.14	0.038	0.97	1.250	31.75	2.99	13.30	5.61	24.95	4.78	0.84
A0720-038-1000-S	0.720	18.29	0.343	8.71	0.038	0.97	1.000	25.40	2.64	11.74	4.88	21.71	5.29	0.93
A0720-038-0750-S	0.720	18.29	0.375	9.53	0.038	0.97	0.750	19.05	2.19	9.74	3.94	17.53	5.84	1.02
A0720-038-0625-S	0.720	18.29	0.438	11.13	0.038	0.97	0.625	15.88	2.10	9.34	3.69	16.41	6.72	1.18
A0720-040-1000-S	0.720	18.29	0.281	7.14	0.040	1.02	1.000	25.40	3.31	14.72	6.08	27.04	6.61	1.16
A0720-040-0750-S	0.720	18.29	0.343	8.71	0.040	1.02	0.750	19.05	2.76	12.28	4.92	21.88	7.35	1.29
A0720-040-0625-S	0.720	18.29	0.375	9.53	0.040	1.02	0.625	15.88	2.45	10.90	4.27	18.99	7.84	1.37
A0720-040-0500-S	0.720	18.29	0.438	11.13	0.040	1.02	0.500	12.70	2.37	10.54	3.98	17.70	9.47	1.66
A0720-042-1000-S	0.720	18.29	0.281	7.14	0.042	1.07	1.000	25.40	4.19	18.64	7.67	34.12	8.37	1.47
A0720-042-0750-S	0.720	18.29	0.343	8.71	0.042	1.07	0.750	19.05	3.44	15.30	6.11	27.18	9.17	1.61
A0720-042-0625-S	0.720	18.29	0.375	9.53	0.042	1.07	0.625	15.88	3.25	14.46	5.62	25.00	10.39	1.82
A0720-045-0750-S	0.720	18.29	0.281	7.14	0.045	1.14	0.750	19.05	4.83	21.48	8.49	37.76	12.87	2.25
A0720-045-0625-S	0.720	18.29	0.343	8.71	0.045	1.14	0.625	15.88	4.35	19.35	7.44	33.09	13.91	2.44
A0720-045-0500-S	0.720	18.29	0.375	9.53	0.045	1.14	0.500	12.70	3.89	17.30	6.37	28.33	15.55	2.72
A0720-049-0625-S	0.720	18.29	0.281	7.14	0.049	1.24	0.625	15.88	6.46	28.73	10.90	48.48	20.67	3.62
A0720-049-0500-S	0.720	18.29	0.343	8.71	0.049	1.24	0.500	12.70	5.73	25.49	9.21	40.97	22.92	4.01
A0720-049-0375-S	0.720	18.29	0.375	9.53	0.049	1.24	0.375	9.53	4.84	21.53	7.15	31.80	25.82	4.52
A0720-055-0500-S	0.720	18.29	0.281	7.14	0.055	1.40	0.500	12.70	10.12	45.01	15.78	70.19	40.50	7.09
A0720-055-0375-S	0.720	18.29	0.312	7.92	0.055	1.40	0.375	9.53	8.34	37.10	11.78	52.40	44.49	7.79
A0850-042-1500-S	0.850	21.59	0.343	8.71	0.042	1.07	1.500	38.10	3.08	13.70	5.82	25.89	4.11	0.72
A0850-042-1250-S	0.850	21.59	0.375	9.53	0.042	1.07	1.250	31.75	2.70	12.01	5.04	22.42	4.32	0.76
A0850-042-1000-S	0.850	21.59	0.438	11.13	0.042	1.07	1.000	25.40	2.35	10.45	4.31	19.17	4.71	0.82
A0850-042-0750-S	0.850	21.59	0.560	14.22	0.042	1.07	0.750	19.05	2.36	10.50	4.19	18.64	6.28	1.10
A0850-045-1500-S	0.850	21.59	0.343	8.71	0.045	1.14	1.500	38.10	4.19	18.64	7.88	35.05	5.59	0.98
A0850-045-1250-S	0.850	21.59	0.375	9.53	0.045	1.14	1.250	31.75	3.75	16.68	6.96	30.96	6.00	1.05
A0850-045-1000-S	0.850	21.59	0.438	11.13	0.045	1.14	1.000	25.40	3.28	14.59	5.97	26.55	6.56	1.15
A0850-045-0750-S	0.850	21.59	0.500	12.70	0.045	1.14	0.750	19.05	3.00	13.34	5.27	23.44	7.99	1.40
A0850-049-1250-S	0.850	21.59	0.312	7.92	0.049	1.24	1.250	31.75	5.68	25.26	10.47	46.57	9.09	1.59
A0850-049-0750-S	0.850	21.59	0.438	11.13	0.049	1.24	0.750	19.05	4.26	18.95	7.40	32.92	11.35	1.99
A0850-049-0625-S	0.850	21.59	0.500	12.70	0.049	1.24	0.625	15.88	4.04	17.97	6.82	30.34	12.93	2.26
A0850-055-1000-S	0.850	21.59	0.281	7.14	0.055	1.40	1.000	25.40	8.50	37.81	15.14	67.34	17.01	2.98
A0850-055-0750-S	0.850	21.59	0.343	8.71	0.055	1.40	0.750	19.05	7.18	31.94	12.25	54.49	19.14	3.35
A0850-055-0625-S	0.850	21.59	0.438	11.13	0.055	1.40	0.625	15.88	6.58	29.27	10.84	48.22	21.05	3.69
A0850-059-0750-S	0.850	21.59	0.312	7.92	0.059	1.50	0.750	19.05	10.00	44.48	16.85	74.95	26.67	4.67
A0850-059-0625-S	0.850	21.59	0.375	9.53	0.059	1.50	0.625	15.88	8.86	39.41	14.37	63.92	28.36	4.97
A0850-063-0625-S	0.850	21.59	0.312	7.92	0.063	1.60	0.625	15.88	12.22	54.35	19.51	86.78	39.07	6.84
A0850-063-0500-S	0.850	21.59	0.375	9.53	0.063	1.60	0.500	12.70	11.09	49.33	16.60	73.84	44.33	7.76
A0850-067-0500-S	0.850	21.59	0.375	9.53	0.067	1.70	0.500	12.70	14.85	66.05	21.74	96.70	59.45	10.41
A0975-049-1500-S	0.975	24.77	0.438	11.13	0.049	1.24	1.500	38.10	3.88	17.26	7.26	32.29	5.18	0.91
A0975-049-1250-S	0.975	24.77	0.500	12.70	0.049	1.24	1.250	31.75	3.56	15.83	6.56	29.18	5.69	1.00
A0975-049-1000-S	0.975	24.77	0.560	14.22	0.049	1.24	1.000	25.40	3.29	14.63	5.93	26.38	6.58	1.15
A0975-049-0750-S	0.975	24.77	0.625	15.88	0.049	1.24	0.750	19.05	2.93	13.03	5.09	22.64	7.81	1.37
A0975-055-1500-S	0.975	24.77	0.375	9.53	0.055	1.40	1.500	38.10	6.88	30.60	12.76	56.76	9.18	1.61
A0975-055-1250-S	0.975	24.77	0.438	11.13	0.055	1.40	1.250	31.75	6.09	27.09	11.10	49.37	9.74	1.71
A0975-055-1000-S	0.975	24.77	0.500	12.70	0.055	1.40	1.000	25.40	5.40	24.02	9.61	42.75	10.79	1.89
A0975-055-0750-S	0.975	24.77	0.560	14.22	0.055	1.40	0.750	19.05	4.83	21.48	8.24	36.65	12.87	2.25
A0975-059-1250-S	0.975	24.77	0.343	8.71	0.059	1.50	1.250	31.75	8.47	37.67	15.34	68.23	13.55	2.37
A0975-059-1000-S	0.975	24.77	0.438	11.13	0.059	1.50	1.000	25.40	7.40	32.92	13.06	58.09	14.81	2.59
A0975-059-0750-S	0.975	24.77	0.500	12.70	0.059	1.50	0.750	19.05	6.44	28.65	10.85	48.26	17.18	3.01
A0975-063-1000-S	0.975	24.77	0.343	8.71	0.063	1.60	1.000	25.40	10.02	44.57	17.51	77.88	20.03	3.51
A0975-063-0750-S	0.975	24.77	0.438	11.13	0.063	1.60	0.750	19.05	8.59	38.21	14.29	63.56	22.92	4.01
A0975-067-0750-S	0.975	24.77	0.375	9.53	0.067	1.70	0.750	19.05	11.44	50.89	18.78	83.53	30.51	5.34
A0975-067-0625-S	0.975	24.77	0.438	11.13	0.067	1.70	0.625	15.88	10.27	45.68	16.14	71.79	32.85	5.75
A0975-072-0750-S	0.975	24.77	0.375	9.53	0.072	1.83	0.750	19.05	16.11	71.66	26.03	115.78	42.98	7.53
A0975-072-0625-S	0.975	24.77	0.438	11.13	0.072	1.83	0.625	15.88	14.85	66.05	22.85	101.64	47.49	8.32
A0975-074-0625-S	0.975	24.77	0.438	11.13	0.074	1.88	0.625	15.88	16.85	74.95	25.71	114.36	53.94	9.44



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SPEC

