

COMPRESSION SPRINGS

Guide to using tables

Wire Diameter
in ascending order of size, within each group of outside diameters.

Maximum Rod Diameter
over which the spring will effectively operate, allowing for working conditions and manufacturing tolerances.

Load at Solid Height
the load or force required to bring all coils into contact (See note 5).

Lee Stock Number

Please add suffix **M** for Music Wire, **S** for Stainless Steel or **S316** for Type 316 Stainless, when ordering.

Outside Diameter

arranged through the pages in ascending order of size.

Minimum Hole Diameter

required for the effective operation of the spring, allowing for manufacturing tolerances and normal working conditions.

COMPRESSION SPRINGS

● End Coils Closed ● Music Wire (Plated), or Stainless Steel (Passivated)

LEE STOCK NUMBER	OUTSIDE DIAMETER		TO WORK IN HOLE DIA.		NOMINAL WIRE DIAMETER		TO WORK OVER ROD DIA. MAX.		APPROXIMATE LOAD AT SOLID HEIGHT		NOMINAL FREE LENGTH		SPRING RATE		APPROXIMATE SOLID HEIGHT		PRICE GROUP		
	IN	MM	IN	MM	IN	MM	IN	MM	N	LB	MM	IN	N/MM	LB/IN	MM	IN	M	S	S316
CIM 020A 01	1.40	0.055	1.50	0.059	0.20	0.008	0.89	0.035	2.57	0.58	3.50	0.138	1.62	9.23	1.91	0.075	B	C	SPECIAL
CIM 020A 02											5.00	0.197	1.06	6.07	2.59	0.102	B	C	SPECIAL
CIM 020A 03											7.50	0.295	0.68	3.87	3.72	0.146	B	C	SPECIAL
CIM 020A 04											10.00	0.394	0.50	2.84	35	0.191	B	C	SPECIAL
CIM 020A 05											12.50	0.492	0.40	2.24	59.7	0.235	B	C	SPECIAL
CIM 020A 06											15.00	0.591	0.32	1.85	74.7	0.279	B	C	SPECIAL
CIM 020A 07											17.50	0.689	0.28	1.58	84.3	0.324	B	C	SPECIAL
CIM 025A 01					0.25	0.010	0.80	0.031	0.53	1.16	3.50	0.138	4.56	36.04	2.31	0.093	B	C	SPECIAL
CIM 025A 02											5.00	0.197	2.94	16.82	3.25	0.128	B	C	SPECIAL
CIM 025A 03											7.50	0.295	1.85	10.58	4.71	0.186	B	C	SPECIAL
CIM 025A 04											10.00	0.394	1.35	7.72	6.18	0.243	B	C	SPECIAL
CIM 025A 05											12.50	0.492	1.06	6.07	7.65	0.301	B	C	SPECIAL
CIM 025A 06											15.00	0.591	0.35	5.01	9.11	0.359	B	C	SPECIAL
CIM 025A 07											17.50	0.689	0.75	4.26	10.58	0.416	B	C	SPECIAL
CIM 030A 01					0.30	0.120	0.70	0.027	0.94	2.07	3.50	0.138	11.63	66.46	2.71	0.115	B	C	SPECIAL
CIM 030A 02											5.00	0.197	7.36	42.06	3.75	0.143	B	C	SPECIAL
CIM 030A 03											7.50	0.295	4.56	26.09	5.48	0.215	B	C	SPECIAL
CIM 030A 04											10.00	0.394	3.31	18.91	7.22	0.284	B	C	SPECIAL
CIM 030A 05											12.50	0.492	2.60	14.83	8.95	0.352	B	C	SPECIAL
CIM 030A 06											15.00	0.591	2.14	12.20	10.69	0.421	B	C	SPECIAL
CIM 030A 07											17.50	0.689	1.83	10.36	12.42	0.489	B	C	SPECIAL
CI 006A 01	1.45	0.057	1.59	0.063	0.15	0.006	0.99	0.039	1.33	0.30	3.18	0.125	0.67	3.80	1.04	0.041	C	G	
CI 006A 02											4.78	0.188	0.42	2.40	1.37	0.054	C	G	
CI 006A 03											6.35	0.250	0.32	1.80	1.68	0.066	C	G	
CI 006A 04											7.94	0.313	0.25	1.40	2.06	0.081	C	G	
CI 006A 05											9.53	0.375	0.19	1.10	2.44	0.096	C	G	
CI 006A 06											11.11	0.438	0.18	1.00	2.74	0.108	C	G	
CI 006A 07											12.70	0.500	0.16	0.90	3.05	0.120	C	G	
CI 006A 08											14.29	0.563	0.12	0.70	3.91	0.154	C	G	
CI 006A 09											15.88	0.625	0.11	0.60	4.42	0.174	C	G	
CI 007A 01					0.18	0.007	0.94	0.037	2.22	0.50	3.18	0.125	1.21	6.90	1.30	0.051	C	G	
CI 007A 02											4.78	0.188	0.72	4.10	1.78	0.070	C	G	
CI 007A 03											6.35	0.250	0.53	3.00	2.29	0.090	C	G	
CI 007A 04											7.94	0.313	0.42	2.40	2.67	0.105	C	G	
CI 007A 05											9.53	0.375	0.37	2.10	3.02	0.119	C	G	
CI 007A 06											11.11	0.438	0.30	1.70	3.56	0.140	C	G	
CI 007A 07											12.70	0.500	0.26	1.50	4.01	0.158	C	G	
CI 007A 08											14.29	0.563	0.23	1.30	4.39	0.173	C	G	
CI 007A 09											15.88	0.625	0.19	1.10	5.05	0.199	C	G	
CI 008A 01					0.20	0.008	0.89	0.035	3.56	0.80	3.18	0.125	2.03	11.60	1.52	0.060	C	G	
CI 008A 02											4.78	0.188	1.33	7.60	2.03	0.080	C	G	
CI 008A 03											6.35	0.250	0.91	5.20	2.64	0.104	C	G	
CI 008A 04											7.94	0.313	0.70	4.00	3.25	0.128	C	G	
CI 008A 05											9.53	0.375	0.60	3.40	3.76	0.148	C	G	
CI 008A 06											11.11	0.438	0.49	2.80	4.37	0.172	C	G	
CI 008A 07											12.70	0.500	0.42	2.40	4.98	0.196	C	G	
CI 008A 08											14.29	0.563	0.39	2.20	5.33	0.210	C	G	
CI 008A 09											15.88	0.625	0.35	2.00	6.17	0.243	C	G	
CI 007AB 01	1.59	0.063	1.98	0.078	0.18	0.007	1.12	0.044	1.90	0.43	3.18	0.125	0.96	5.48	1.20	0.047	C	D	H
CI 007AB 02											4.78	0.188	0.60	3.41	1.60	0.063	C	D	H
CI 007AB 03											6.35	0.250	0.44	2.49	2.00	0.079	C	D	H
CI 007AB 04											7.94	0.313	0.34	1.95	2.40	0.095	C	D	H
CI 007AB 05											9.53	0.375	0.29	1.66	2.80	0.110	C	D	H
CI 007AB 06											11.13	0.438	0.24	1.37	3.20	0.126	C	D	H
CI 007AB 07											12.70	0.500	0.21	1.19	3.60	0.142	C	D	H
CI 007AB 08											14.30	0.563	0.18	1.05	4.00	0.158	C	D	H
CI 007AB 09											15.88	0.625	0.16	0.94	4.40	0.173	C	D	H

28 Spring rates and maximum loads relate only to music wire. When using stainless steel multiply by 0.833

Free Length
the overall length of the spring in the unloaded position.

Price Group
reference to the price list

Special
in the S316 price group column means that springs are available but as special orders only.

Solid Height
Length when fully compressed.

Spring Rate
change in load or force per unit of deflection (See note 5).

ADDITIONAL INFORMATION

- Load at Solid Height, Solid Height and Number of Coils are all given as approximate figures because during the manufacturing process all material and engineering tolerances may result in the number of coils being adjusted, to maintain the correct spring rate.
- To find the load at any working length, when free length and spring rate are given, use the formula $F = S \times \Delta L$ (where F is the load; S is the spring rate; ΔL is the deflection from free length).
- It is general practice to avoid compressing springs to their solid height in order to achieve longer life **Therefore we recommend that compression springs should not be compressed greater than 80% of their deflective capability - except on an occasional basis.**
- Material specifications, finishes and tolerances are detailed on page 163.
- Please note the spring rates at solid height and maximum load listed in the compression spring tables relate only to music wire. **When choosing stainless steel multiply factors by 0.833.**