



WHEN IT COMES TO PRECISION DESIGN

SIZE MATTERS

Introducing the smallest wave springs on the market



SMALLEY

THE ENGINEER'S CHOICE®

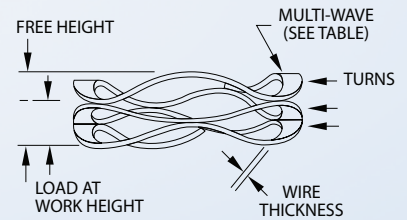
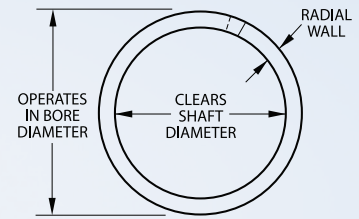
PRODUCT UPDATE: SERIES EXPANSION

C and CM Series Goes Smaller

Introducing the smallest wave springs on the market, offering up to 50% space savings.

The C and CM Series are the newest product lines to be expanded as a result of Smalley's growing manufacturing capabilities. These advancements allow Smalley to design and manufacture custom Crest-to-Crest® Wave Springs down to .157" or 4 mm in diameter. Challenge us to see if we can design and manufacture a spring for your compact application with **No Tooling Charges™**.

Product Dimensions



Request free samples
www.smalley.com/samples

CM Series: Metric Catalog Dimensions

All dimensions in millimeters unless otherwise specified

Smalley Part Number ¹	Operates in Bore Diameter	Clears Shaft Diameter	Load (N)	Work Height	Free Height ²	Number of Waves	Number of Turns	Thickness	Radial Wall	Spring Rate ³ (N/mm)
CM05-L1-S17	5	3.5	5	1.14	1.84	2.5	3	.13	.46	7.14
CM05-L2-S17	5	3.5	5	1.52	2.45	2.5	4	.13	.46	5.38
CM05-L3-S17	5	3.5	5	1.91	3.06	2.5	5	.13	.46	4.35
CM05-L4-S17	5	3.5	5	2.26	3.68	2.5	6	.13	.46	3.52
CM05-L5-S17	5	3.5	5	2.67	4.29	2.5	7	.13	.46	3.09
CM05-L6-S17	5	3.5	5	3.02	4.90	2.5	8	.13	.46	2.66
CM05-L7-S17	5	3.5	5	3.43	5.52	2.5	9	.13	.46	2.39
CM05-L8-S17	5	3.5	5	4.14	6.74	2.5	11	.13	.46	1.92
CM05-L9-S17	5	3.5	5	4.90	7.97	2.5	13	.13	.46	1.63
CM05-M1-S17	5	3.5	10	1.14	1.89	2.5	3	.15	.46	13.33
CM05-M2-S17	5	3.5	10	1.52	2.52	2.5	4	.15	.46	10.00
CM05-M3-S17	5	3.5	10	1.91	3.15	2.5	5	.15	.46	8.06
CM05-M4-S17	5	3.5	10	2.26	3.78	2.5	6	.15	.46	6.58
CM05-M5-S17	5	3.5	10	2.67	4.41	2.5	7	.15	.46	5.75
CM05-M6-S17	5	3.5	10	3.02	5.04	2.5	8	.15	.46	4.95
CM05-M7-S17	5	3.5	10	3.43	5.67	2.5	9	.15	.46	4.46
CM05-M8-S17	5	3.5	10	4.14	6.93	2.5	11	.15	.46	3.58
CM05-M9-S17	5	3.5	10	4.90	8.19	2.5	13	.15	.46	3.04

¹ Standard parts listed are only available in 17-7 PH stainless steel, contact Smalley for exotic alloys.

² Reference dimension.

³ Theoretical dimension; measured in N/mm.

C Series: Imperial Catalog Dimensions

All dimensions in inches unless otherwise specified

Smalley Part Number ¹	Operates in Bore Diameter	Clears Shaft Diameter	Load (lb)	Work Height	Free Height ²	Number of Waves	Number of Turns	Thickness	Radial Wall	Spring Rate ³ (lb/in)
C018-L1-S17	.188	.125	1.0	.035	.075	2.5	3	.004	.015	25.0
C018-L2-S17	.188	.125	1.0	.046	.100	2.5	4	.004	.015	18.5
C018-L3-S17	.188	.125	1.0	.057	.125	2.5	5	.004	.015	14.7
C018-L4-S17	.188	.125	1.0	.068	.150	2.5	6	.004	.015	12.2
C018-L5-S17	.188	.125	1.0	.079	.175	2.5	7	.004	.015	10.4
C018-L6-S17	.188	.125	1.0	.090	.200	2.5	8	.004	.015	9.1
C018-L7-S17	.188	.125	1.0	.101	.226	2.5	9	.004	.015	8.0
C018-L8-S17	.188	.125	1.0	.123	.276	2.5	11	.004	.015	6.5
C018-L9-S17	.188	.125	1.0	.145	.326	2.5	13	.004	.015	5.5
C018-M1-S17	.188	.125	2.2	.047	.089	2.5	3	.005	.020	52.4
C018-M2-S17	.188	.125	2.2	.063	.119	2.5	4	.005	.020	39.3
C018-M3-S17	.188	.125	2.2	.079	.149	2.5	5	.005	.020	31.4
C018-M4-S17	.188	.125	2.2	.095	.179	2.5	6	.005	.020	26.2
C018-M5-S17	.188	.125	2.2	.111	.209	2.5	7	.005	.020	22.4
C018-M6-S17	.188	.125	2.2	.127	.239	2.5	8	.005	.020	19.6
C018-M7-S17	.188	.125	2.2	.143	.268	2.5	9	.005	.020	17.6
C018-M8-S17	.188	.125	2.2	.174	.328	2.5	11	.005	.020	14.3
C018-M9-S17	.188	.125	2.2	.203	.388	2.5	13	.005	.020	11.9
C021-L1-S17	.219	.140	1.5	.040	.079	2.5	3	.005	.020	38.5
C021-L2-S17	.219	.140	1.5	.053	.105	2.5	4	.005	.020	28.8
C021-L3-S17	.219	.140	1.5	.066	.131	2.5	5	.005	.020	23.1
C021-L4-S17	.219	.140	1.5	.080	.157	2.5	6	.005	.020	19.5
C021-L5-S17	.219	.140	1.5	.092	.183	2.5	7	.005	.020	16.5
C021-L6-S17	.219	.140	1.5	.106	.209	2.5	8	.005	.020	14.6
C021-L7-S17	.219	.140	1.5	.120	.236	2.5	9	.005	.020	12.9
C021-L8-S17	.219	.140	1.5	.146	.288	2.5	11	.005	.020	10.6
C021-L9-S17	.219	.140	1.5	.171	.340	2.5	13	.005	.020	8.9
C021-M1-S17	.219	.140	4.5	.051	.080	2.5	3	.008	.020	155.2
C021-M2-S17	.219	.140	4.5	.068	.107	2.5	4	.008	.020	115.4
C021-M3-S17	.219	.140	4.5	.085	.133	2.5	5	.008	.020	93.8
C021-M4-S17	.219	.140	4.5	.101	.160	2.5	6	.008	.020	76.3
C021-M5-S17	.219	.140	4.5	.118	.187	2.5	7	.008	.020	65.2
C021-M6-S17	.219	.140	4.5	.135	.214	2.5	8	.008	.020	57.0
C021-M7-S17	.219	.140	4.5	.152	.240	2.5	9	.008	.020	51.1
C021-M8-S17	.219	.140	4.5	.187	.294	2.5	11	.008	.020	42.1
C021-M9-S17	.219	.140	4.5	.217	.347	2.5	13	.008	.020	34.6

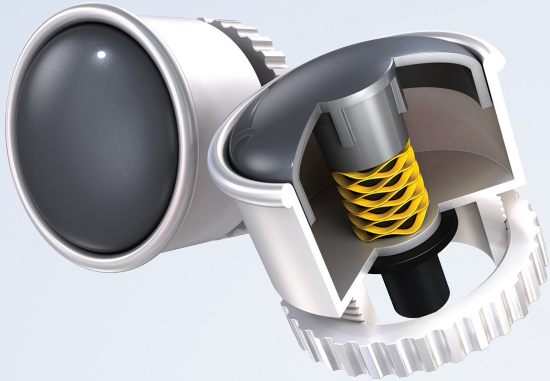
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² Reference dimension.

³ Theoretical dimension; measured in lb/in.

SMALLEY GOES SMALLER

The C and CM series wave springs are now available for industries with compact applications



Push Button, Robotics



Mother Board Fans,
Consumer Electronics

A small part of a bigger application

Smalley is the preferred partner for spring design in the robotics, medical, and consumer electronics market. Our engineers have over 50 years of experience designing parts across a variety of industries including aerospace, automotive, oil and gas, off-highway, and many others.

Smalley Crest-to-Crest® Wave Springs:

- Reduce spring height by up to 50%
- Ideal for tight radial and axial spaces
- Manufacturing capabilities from .157" or 4 mm in diameter
- ISO 9001, ISO 14001, ISO/TS 16949, and AS 9100C certified

Ask Smalley™ how we can work for you.

Request free samples
www.smalley.com/samples



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