
PRECISION SPRING DESIGN SOLUTIONS
FOR COMPACT APPLICATIONS

Smalley Crest-to-Crest® Series Expansion

Introducing the smallest wave springs on the market



Smalley's New Crest-to-Crest® Series now available down to 5mm.



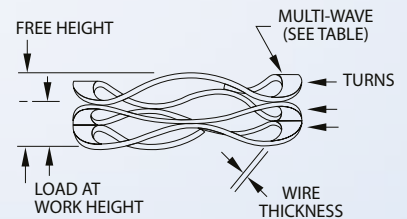
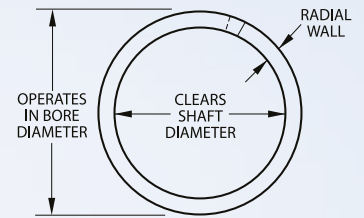
PRODUCT UPDATE: SERIES EXPANSION

YC and YCM Series Go Smaller

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

TFC's YC and YCM 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 TFC's Engineers to design a spring for your compact application with No Tooling Charges™.

Product Dimensions



[Request free samples](#)

YCM Series: Metric Catalogue Dimensions

All dimensions in millimeters unless otherwise specified

TFC 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)
YCM05-L1-S17	5	3.5	5	1.14	1.84	2.5	3	.13	.46	7.14
YCM05-L2-S17	5	3.5	5	1.52	2.45	2.5	4	.13	.46	5.38
YCM05-L3-S17	5	3.5	5	1.91	3.06	2.5	5	.13	.46	4.35
YCM05-L4-S17	5	3.5	5	2.26	3.68	2.5	6	.13	.46	3.52
YCM05-L5-S17	5	3.5	5	2.67	4.29	2.5	7	.13	.46	3.09
YCM05-L6-S17	5	3.5	5	3.02	4.90	2.5	8	.13	.46	2.66
YCM05-L7-S17	5	3.5	5	3.43	5.52	2.5	9	.13	.46	2.39
YCM05-L8-S17	5	3.5	5	4.14	6.74	2.5	11	.13	.46	1.92
YCM05-L9-S17	5	3.5	5	4.90	7.97	2.5	13	.13	.46	1.63
YCM05-M1-S17	5	3.5	10	1.14	1.89	2.5	3	.15	.46	13.33
YCM05-M2-S17	5	3.5	10	1.52	2.52	2.5	4	.15	.46	10.00
YCM05-M3-S17	5	3.5	10	1.91	3.15	2.5	5	.15	.46	8.06
YCM05-M4-S17	5	3.5	10	2.26	3.78	2.5	6	.15	.46	6.58
YCM05-M5-S17	5	3.5	10	2.67	4.41	2.5	7	.15	.46	5.75
YCM05-M6-S17	5	3.5	10	3.02	5.04	2.5	8	.15	.46	4.95
YCM05-M7-S17	5	3.5	10	3.43	5.67	2.5	9	.15	.46	4.46
YCM05-M8-S17	5	3.5	10	4.14	6.93	2.5	11	.15	.46	3.58
YCM05-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 our Engineering Team for exotic alloys.

² Reference dimension.

³ Theoretical dimension; measured in N/mm.

YC Series: Imperial Catalogue Dimensions

All dimensions in inches unless otherwise specified

TFC 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)
YC018-L1-S17	.188	.125	1.0	.035	.075	2.5	3	.004	.015	25.0
YC018-L2-S17	.188	.125	1.0	.046	.100	2.5	4	.004	.015	18.5
YC018-L3-S17	.188	.125	1.0	.057	.125	2.5	5	.004	.015	14.7
YC018-L4-S17	.188	.125	1.0	.068	.150	2.5	6	.004	.015	12.2
YC018-L5-S17	.188	.125	1.0	.079	.175	2.5	7	.004	.015	10.4
YC018-L6-S17	.188	.125	1.0	.090	.200	2.5	8	.004	.015	9.1
YC018-L7-S17	.188	.125	1.0	.101	.226	2.5	9	.004	.015	8.0
YC018-L8-S17	.188	.125	1.0	.123	.276	2.5	11	.004	.015	6.5
YC018-L9-S17	.188	.125	1.0	.145	.326	2.5	13	.004	.015	5.5
YC018-M1-S17	.188	.125	2.2	.047	.089	2.5	3	.005	.020	52.4
YC018-M2-S17	.188	.125	2.2	.063	.119	2.5	4	.005	.020	39.3
YC018-M3-S17	.188	.125	2.2	.079	.149	2.5	5	.005	.020	31.4
YC018-M4-S17	.188	.125	2.2	.095	.179	2.5	6	.005	.020	26.2
YC018-M5-S17	.188	.125	2.2	.111	.209	2.5	7	.005	.020	22.4
YC018-M6-S17	.188	.125	2.2	.127	.239	2.5	8	.005	.020	19.6
YC018-M7-S17	.188	.125	2.2	.143	.268	2.5	9	.005	.020	17.6
YC018-M8-S17	.188	.125	2.2	.174	.328	2.5	11	.005	.020	14.3
YC018-M9-S17	.188	.125	2.2	.203	.388	2.5	13	.005	.020	11.9
YC021-L1-S17	.219	.140	1.5	.040	.079	2.5	3	.005	.020	38.5
YC021-L2-S17	.219	.140	1.5	.053	.105	2.5	4	.005	.020	28.8
YC021-L3-S17	.219	.140	1.5	.066	.131	2.5	5	.005	.020	23.1
YC021-L4-S17	.219	.140	1.5	.080	.157	2.5	6	.005	.020	19.5
YC021-L5-S17	.219	.140	1.5	.092	.183	2.5	7	.005	.020	16.5
YC021-L6-S17	.219	.140	1.5	.106	.209	2.5	8	.005	.020	14.6
YC021-L7-S17	.219	.140	1.5	.120	.236	2.5	9	.005	.020	12.9
YC021-L8-S17	.219	.140	1.5	.146	.288	2.5	11	.005	.020	10.6
YC021-L9-S17	.219	.140	1.5	.171	.340	2.5	13	.005	.020	8.9
YC021-M1-S17	.219	.140	4.5	.051	.080	2.5	3	.008	.020	155.2
YC021-M2-S17	.219	.140	4.5	.068	.107	2.5	4	.008	.020	115.4
YC021-M3-S17	.219	.140	4.5	.085	.133	2.5	5	.008	.020	93.8
YC021-M4-S17	.219	.140	4.5	.101	.160	2.5	6	.008	.020	76.3
YC021-M5-S17	.219	.140	4.5	.118	.187	2.5	7	.008	.020	65.2
YC021-M6-S17	.219	.140	4.5	.135	.214	2.5	8	.008	.020	57.0
YC021-M7-S17	.219	.140	4.5	.152	.240	2.5	9	.008	.020	51.1
YC021-M8-S17	.219	.140	4.5	.187	.294	2.5	11	.008	.020	42.1
YC021-M9-S17	.219	.140	4.5	.217	.347	2.5	13	.008	.020	34.6

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

² Reference dimension.

³ Theoretical dimension; measured in lb/in.



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