#### Волновые пружины C/CS Технические характеристики (eng)

Архангельск (8182)63-90-72 Астана (7172)727-132 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Волгоград (844)278-03-48 Вологда (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Краснодар (861)203-40-90 Красноярск (391)204-63-61 Курох (4712)77-13-04 Липецк (4742)52-20-81 Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (3843)20-46-81 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35 Тверь (4822)63-31-35 Томск (3822)98-41-53 Тула (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Ярославль (4852)69-52-93

# Crest-To-Crest® Springs



**Product Dimensions** 

All dimensions in inches unless otherwise specified.

**Stock Items** in carbon steel and 17-7 PH/C stainless steel.

Smalley Part	Operates in Bore	Clears Shaft	Load	Work	Free	Number of	Number of		Radial	Spring
Number 1,2,5	Diameter	Diameter	(lb)	Height	Height <sup>3</sup>	Waves	Turns	Thickness	Wall	Rate 4
C025-L1*	.250	.150	2	.033	.075	2.5	3	.006	.024	48
C025-L2*	.250	.150	2	.050	.100	2.5	4	.006	.024	40
C025-L3*	.250	.150	2	.060	.125	2.5	5	.006	.024	31
C025-L4*	.250	.150	2	.075	.150	2.5	6	.006	.024	27
C025-L5*	.250	.150	2	.085	.175	2.5	7	.006	.024	22
C025-L6*	.250	.150	2	.095	.200	2.5	8	.006	.024	19
C025-L7*	.250	.150	2	.120	.225	2.5 2.5	9	.006	.024	19
C025-L8* C025-L9*	.250 .250	.150 .150	2	.140 .170	.275 .325	2.5	11 13	.006 .006	.024 .024	15 13
C025-M1*	.250	.150	5	.037	.075	2.5	3	.008	.024	132
C025-M1*	.250	.150	5	.048	.100	2.5	4	.008	.024	96
C025-M3*	.250	.150	5	.065	.125	2.5	5	.008	.024	83
C025-M4*	.250	.150	5	.075	.150	2.5	6	.008	.024	67
C025-M5*	.250	.150	5	.090	.175	2.5	7	.008	.024	59
C025-M6*	.250	.150	5	.100	.200	2.5	8	.008	.024	50
C025-M7*	.250	.150	5	.120	.225	2.5	9	.008	.024	48
C025-M8*	.250	.150	5	.148	.275	2.5	11	.008	.024	39
C025-M9*	.250	.150	5	.175	.325	2.5	13	.008	.024	33
C031-L1	.312	.200	3	.070	.114	2.5	3	.008	.032	68
C031-L2	.312	.200	3	.096	.152	2.5	4	.008	.032	54
C031-L3	.312	.200	3	.118	.190	2.5	5	.008	.032	42
C031-L4	.312	.200	3	.145	.228	2.5	6	.008	.032	36
C031-L5	.312	.200	3	.165	.266	2.5	7	.008	.032	30
C031-L6	.312	.200	3	.195	.304	2.5	8	.008	.032	28
C031-L7 C031-L8	.312 .312	.200	3	.215 .262	.342	2.5	9 11	.008	.032	24 19
C031-L9	.312	.200 .200	3	.309	.418 .494	2.5 2.5	13	.008 .008	.032	16
C031-L9	.312	.200	6	.072	.114	2.5	3	.010	.032	143
C031-M1	.312	.200	6	.096	.152	2.5	4	.010	.032	107
C031-M3	.312	.200	6	.123	.190	2.5	5	.010	.032	90
C031-M4	.312	.200	6	.144	.228	2.5	6	.010	.032	71
C031-M5	.312	.200	6	.176	.266	2.5	7	.010	.032	67
C031-M6	.312	.200	6	.197	.304	2.5	8	.010	.032	56
C031-M7	.312	.200	6	.227	.342	2.5	9	.010	.032	52
C031-M8	.312	.200	6	.278	.418	2.5	11	.010	.032	43
C031-M9	.312	.200	6	.336	.494	2.5	13	.010	.032	38
C037-L1	.375	.250	4	.062	.150	2.5	3	.008	.032	45
C037-L2	.375	.250	4	.098	.200	2.5	4	.008	.032	39
C037-L3	.375	.250	4	.108	.250	2.5	5	.008	.032	28
C037-L4	.375	.250	4	.135	.300	2.5	6	.008	.032	24
C037-L5 C037-L6	.375 .375	.250 .250	4	.150 .184	.350 .400	2.5 2.5	7 8	.008 800.	.032	20 19
C037-L7	.375	.250	4	.195	.450	2.5	9	.008	.032	16
C037-L8	.375	.250	4	.228	.500	2.5	10	.008	.032	15
C037-L0	.375	.250	4	.240	.550	2.5	11	.008	.032	13
C037-M1	.375	.250	7	.081	.150	2.5	3	.011	.032	101
C037-M2	.375	.250	7	.119	.200	2.5	4	.011	.032	86
C037-M3	.375	.250	7	.145	.250	2.5	5	.011	.032	67
C037-M4	.375	.250	7	.180	.300	2.5	6	.011	.032	58
C037-M5	.375	.250	7	.202	.350	2.5	7	.011	.032	47
C037-M6	.375	.250	7	.240	.400	2.5	8	.011	.032	44
C037-M7	.375	.250	7	.262	.450	2.5	9	.011	.032	37
C037-M8	.375	.250	7	.298	.500	2.5	10	.011	.032	35
C037-M9	.375	.250	7	.327	.550	2.5	11	.011	.032	31

amess sand mos specimen
OPERATES IN BORE DIAMETER DIAMETER
Plain Ends
MI II TI-WAVE
FREE HEIGHT (SEE TABLE)
→ TURNS
T T WIRE
WORK HEIGHT THICKNESS
Shim Ends
FREE HEIGHT MULTI-WAVE
(SEE TABLE)
→ TURNS
LOAD AT WIRE
WORK HEIGHT THICKNESS

#### **Order Options**

C037-L1
End options: Plain ends
Material ontion:

<sup>&</sup>lt;sup>1</sup> Use "C" prefix for plain ends. Use "CS" prefix for squared-shim ends.

<sup>&</sup>lt;sup>2</sup> Add suffix "-S17" for 17-7 stainless steel.

<sup>&</sup>lt;sup>3</sup> Reference dimension.

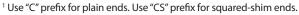
<sup>&</sup>lt;sup>4</sup>Theoretical dimension; measured in lb/in.

 $<sup>^{\</sup>rm 5}$  See See pages 126-127 for How to Order.

<sup>\*</sup>Not available with shim ends

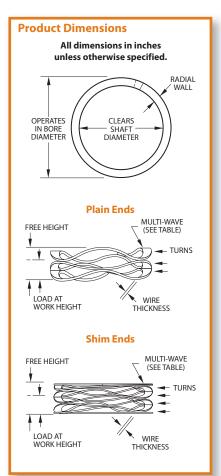


Smalley Part	Operates in Bore	Clears Shaft	Load	Work	Free	Number of	Number of		Radial	Spring
Number 1, 2, 5	Diameter	Diameter	(lb)	Height	Height <sup>3</sup>	Waves	Turns	Thickness	Wall	Rate 4
C043-L1	.437	.281	4	.063	.165	2.5	3	.008	.040	39
C043-L2	.437	.281	4	.093	.220	2.5	4	.008	.040	31
C043-L3	.437	.281	4	.109	.275	2.5	5	.008	.040	24
C043-L4	.437	.281	4	.143	.330	2.5	6	.008	.040	21
C043-L5	.437	.281	4	.160	.385	2.5	7	.008	.040	18
C043-L6	.437	.281	4	.195	.440	2.5	8	.008	.040	16
C043-L7	.437	.281	4	.210	.495	2.5	9	.008	.040	14
C043-L8	.437	.281	4	.240	.550	2.5	10	.008	.040	13
C043-L9	.437	.281	4	.260	.605	2.5	11	.008	.040	12
C043-M1	.437	.281	8	.082	.165	2.5	3	.011	.046	96
C043-M2	.437	.281	8	.115 .142	.220 .275	2.5 2.5	4 5	.011	.046	76
C043-M3 C043-M4	.437 .437	.281 .281	8	.142	.330	2.5	6	.011 .011	.046 .046	60 53
C043-M5	.437	.281	8	.179	.385	2.5	7	.011	.046	43
C043-M6	.437	.281	8	.231	.440	2.5	8	.011	.046	38
C043-M7	.437	.281	8	.255	.495	2.5	9	.011	.046	33
C043-M8	.437	.281	8	.290	.550	2.5	10	.011	.046	31
C043-M9	.437	.281	8	.319	.605	2.5	11	.011	.046	28
C050-L1	.500	.312	5	.062	.180	2.5	3	.008	.056	42
C050-L2	.500	.312	5	.090	.240	2.5	4	.008	.056	33
C050-L3	.500	.312	5	.107	.300	2.5	5	.008	.056	26
C050-L4	.500	.312	5	.136	.360	2.5	6	.008	.056	22
C050-L5	.500	.312	5	.150	.420	2.5	7	.008	.056	19
C050-L6	.500	.312	5	.180	.480	2.5	8	.008	.056	17
C050-L7	.500	.312	5	.195	.540	2.5	9	.008	.056	14
C050-L8	.500	.312	5	.220	.600	2.5	10	.008	.056	13
C050-L9	.500	.312	5	.240	.660	2.5	11	.008	.056	12
C050-M1	.500	.312	10	.065	.180	2.5	3	.010	.058	87
C050-M2	.500	.312	10	.092	.240	2.5	4	.010	.058	68
C050-M3	.500	.312	10	.114	.300	2.5	5	.010	.058	54
C050-M4	.500	.312	10	.147	.360	2.5	6	.010	.058	47
C050-M5	.500	.312	10	.162	.420	2.5	7	.010	.058	39
C050-M6	.500	.312	10	.196	.480	2.5	8	.010	.058	35
C050-M7	.500	.312	10	.207	.540	2.5	9 10	.010	.058	30
C050-M8 C050-M9	.500	.312 .312	10	.246 .264	.600 .660	2.5 2.5		.010 .010	.058	28 25
C050-M9	.500 .500	.312	10 15	.075	.180	2.5	11 3	.010	.060	143
C050-H2	.500	.312	15	.110	.240	2.5	4	.012	.060	115
C050-H3	.500	.312	15	.136	.300	2.5	5	.012	.060	91
C050-H4	.500	.312	15	.167	.360	2.5	6	.012	.060	78
C050-H5	.500	.312	15	.182	.420	2.5	7	.012	.060	63
C050-H6	.500	.312	15	.216	.480	2.5	8	.012	.060	57
C050-H7	.500	.312	15	.240	.540	2.5	9	.012	.060	50
C050-H8	.500	.312	15	.280	.600	2.5	10	.012	.060	47
C050-H9	.500	.312	15	.312	.660	2.5	11	.012	.060	43
C056-L1	.562	.375	5	.080	.195	2.5	3	.009	.058	43
C056-L2	.562	.375	5	.125	.260	2.5	4	.009	.058	37
C056-L3	.562	.375	5	.135	.325	2.5	5	.009	.058	26
C056-L4	.562	.375	5	.180	.390	2.5	6	.009	.058	24
C056-L5	.562	.375	5	.190	.455	2.5	7	.009	.058	19
C056-L6	.562	.375	5	.230	.520	2.5	8	.009	.058	17
C056-L7	.562	.375	5	.260	.585	2.5	9	.009	.058	15
C056-L8	.562	.375	5	.285	.650	2.5	10	.009	.058	14
C056-L9	.562	.375	5	.315	.715	2.5	11	.009	.058	13



<sup>&</sup>lt;sup>2</sup> Add suffix "-S17" for 17-7 stainless steel.







<sup>&</sup>lt;sup>3</sup> Reference dimension.

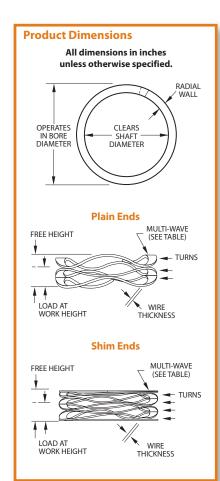
<sup>&</sup>lt;sup>4</sup> Theoretical dimension; measured in lb/in.

 $<sup>^{\</sup>scriptsize 5}$  See pages 126-127 for How to Order.

# Crest-To-Crest® Springs



Smalley Part	Operates in Bore	Clears Shaft	Load	Work	Free	Number of	Number of		Radial	Spring
Number 1,2,5	Diameter	Diameter	(lb)	Height	Height <sup>3</sup>	Waves	Turns	Thickness	Wall	Rate 4
C056-M1	.562	.375	11	.086	.195	2.5	3	.012	.060	101
C056-M2 C056-M3	.562 .562	.375 .375	11 11	.123 .145	.260 .325	2.5 2.5	4 5	.012 .012	.060	80 61
C056-M3	.562	.375	11	.143	.323	2.5	6	.012	.060	54
C056-M5	.562	.375	11	.209	.455	2.5	7	.012	.060	45
C056-M6	.562	.375	11	.253	.520	2.5	8	.012	.060	41
C056-M7	.562	.375	11	.273	.585	2.5	9	.012	.060	35
C056-M8 C056-M9	.562 .562	.375 .375	11 11	.318 .343	.650 .715	2.5 2.5	10 11	.012 .012	.060	33 30
C056-M9	.562	.375	18	.093	.715	2.5	3	.012	.060	176
C056-H2	.562	.375	18	.136	.260	2.5	4	.015	.060	145
C056-H3	.562	.375	18	.165	.325	2.5	5	.015	.060	113
C056-H4	.562	.375	18	.212	.390	2.5	6	.015	.060	101
C056-H5 C056-H6	.562 .562	.375 .375	18 18	.245 .282	.455 .520	2.5 2.5	7 8	.015 .015	.060	86 76
C056-H7	.562	.375	18	.323	.585	2.5	9	.015	.060	69
C056-H8	.562	.375	18	.360	.650	2.5	10	.015	.060	62
C056-H9	.562	.375	18	.408	.715	2.5	11	.015	.060	59
C062-L1	.625	.450	6	.055	.180	2.5	3	.010	.058	48
C062-L2 C062-L3	.625 .625	.450 .450	6	.068 .085	.240	2.5 2.5	4 5	.010 .010	.058 .058	35 28
C062-L4	.625	.450	6	.106	.360	2.5	6	.010	.058	24
C062-L5	.625	.450	6	.128	.420	2.5	7	.010	.058	21
C062-L6	.625	.450	6	.165	.540	2.5	9	.010	.058	16
C062-L7	.625	.450	6	.202	.660	2.5	11	.010	.058	13
C062-L8 C062-M1	.625 .625	.450 .450	6 12	.238	.780 .180	2.5 3.5	13 3	.010	.058	11 158
C062-M1	.625	.450	12	.130	.240	3.5	4	.010	.058	109
C062-M3	.625	.450	12	.175	.300	3.5	5	.010	.058	96
C062-M4	.625	.450	12	.206	.360	3.5	6	.010	.058	78
C062-M5	.625	.450	12	.246	.420	3.5	7	.010	.058	69
C062-M6 C062-M7	.625 .625	.450 .450	12 12	.317 .386	.540 .660	3.5 3.5	9 11	.010 .010	.058 .058	54 44
C062-M7	.625	.450	12	.454	.780	3.5	13	.010	.058	37
C062-H1	.625	.450	20	.102	.180	3.5	3	.012	.060	256
C062-H2	.625	.450	20	.135	.240	3.5	4	.012	.060	190
C062-H3	.625	.450	20	.175	.300	3.5	5	.012	.060	160
C062-H4 C062-H5	.625 .625	.450 .450	20 20	.205 .245	.360 .420	3.5 3.5	6 7	.012 .012	.060	129 114
C062-H5	.625	.450	20	.315	.540	3.5	9	.012	.060	89
C062-H7	.625	.450	20	.390	.660	3.5	11	.012	.060	74
C062-H8	.625	.450	20	.465	.780	3.5	13	.012	.060	63
C075-L1	.750	.550	7	.142	.250	3.5	3	.008	.071	65
C075-L2 C075-L3	.750 .750	.550 .550	7 7	.187 .246	.333 .417	3.5 3.5	4 5	.008 800.	.071 .071	48 41
C075-L4	.750	.550	7	.285	.500	3.5	6	.008	.071	33
C075-L5	.750	.550	7	.348	.583	3.5	7	.008	.071	30
C075-L6	.750	.550	7	.446	.750	3.5	9	.008	.071	23
C075-L7	.750	.550	7	.580	1.000	3.5	12	.008	.071	17
C075-M1 C075-M2	.750 .750	.550 .550	13 13	.159 .203	.250 .333	3.5 3.5	3 4	.010 .010	.078 .078	143 100
C075-M2	.750	.550	13	.270	.417	3.5	5	.010	.078	88
C075-M4	.750	.550	13	.314	.500	3.5	6	.010	.078	70
C075-M5	.750	.550	13	.381	.583	3.5	7	.010	.078	64
C075-M6	.750	.550	13	.489	.750	3.5	9	.010	.078	50
C075-M7 C075-H1	.750 .750	.550 .550	13 22	.649 .169	1.000	3.5 3.5	12 3	.010 .013	.078	37 272
C075-H1	.750	.550	22	.215	.333	3.5	4	.013	.079	186
C075-H3	.750	.550	22	.291	.417	3.5	5	.013	.079	175
C075-H4	.750	.550	22	.335	.500	3.5	6	.013	.079	133
C075-H5	.750	.550	22	.405	.583	3.5	7	.013	.079	124
C075-H7	.750	.550 .550	22 22	.526	.750	3.5	9	.013	.079	98 73
C075-H7	.750	.550	22	.699	1.000	3.5	12	.013	.079	73



Order Options
C037-L1
End options: Plain ends
Material option:
Carbon Steel (blank) Stainless SteelS17

<sup>&</sup>lt;sup>1</sup> Use "C" prefix for plain ends. Use "CS" prefix for squared-shim ends.

<sup>&</sup>lt;sup>2</sup> Add suffix "-S17" for 17-7 stainless steel.

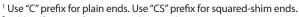
<sup>&</sup>lt;sup>3</sup> Reference dimension.

<sup>&</sup>lt;sup>4</sup>Theoretical dimension; measured in lb/in.

<sup>&</sup>lt;sup>5</sup> See pages 126-127 for How to Order.

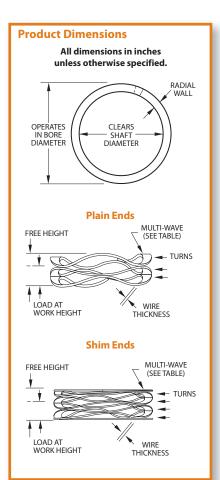


	Operates	Clears			_	Number	Number			
Smalley Part Number 1, 2, 5	in Bore Diameter	Shaft Diameter	Load (lb)	Work Height	Free Heiaht <sup>3</sup>	of Waves	of Turns	Thickness	Radial Wall	Spring Rate <sup>4</sup>
C087-L1			12	_		3.5	3		.086	90
C087-L1	.875 .875	.600 .600	12	.117 .158	.250 .333	3.5	4	.010 .010	.086	69
C087-L3	.875	.600	12	.207	.417	3.5	5	.010	.086	57
C087-L4	.875	.600	12	.242	.500	3.5	6	.010	.086	47
C087-L5	.875	.600	12	.287	.583	3.5	7	.010	.086	41
C087-L6	.875	.600	12	.378	.750	3.5	9	.010	.086	32
C087-L7	.875	.600	12	.498	1.000	3.5	12	.010	.086	24
C087-M1	.875	.600	18	.124	.250	3.5	3	.012	.094	148
C087-M2	.875	.600	18	.164	.333	3.5	4	.012	.094	108
C087-M3	.875	.600	18	.214	.417	3.5	5	.012	.094	89
C087-M4	.875	.600	18	.252	.500	3.5	6	.012	.094	76
C087-M5	.875	.600	18	.296	.583	3.5	7	.012	.094	66
C087-M6	.875	.600	18	.385	.750	3.5	9	.012	.094	50
C087-M7	.875	.600	18	.509	1.000	3.5	12	.012	.094	38
C087-H1	.875	.600	25	.166	.250	3.5	3	.015	.094	298
C087-H2	.875	.600	25	.214	.333	3.5	4	.015	.094	210
C087-H3	.875	.600	25	.278	.417	3.5	5	.015	.094	180
C087-H4	.875	.600	25	.327	.500	3.5	6	.015	.094	145
C087-H5	.875	.600	25	.395	.583	3.5	7	.015	.094	133
C087-H6	.875	.600	25	.510	.750	3.5	9	.015	.094	104
C087-H7	.875	.600	25	.670	1.000	3.5	12	.015	.094	78
C100-L1	1.000	.730	12	.084	.250	3.5	3	.010	.086	72
C100-L2	1.000	.730	12	.108	.333	3.5	4	.010	.086	53
C100-L3 C100-L4	1.000 1.000	.730 .730	12 12	.145 .165	.417 .500	3.5 3.5	5 6	.010 .010	.086	44 36
C100-L4	1.000	.730	12	.103	.583	3.5	7	.010	.086	31
C100-L6	1.000	.730	12	.258	.750	3.5	9	.010	.086	24
C100-L7	1.000	.730	12	.342	1.000	3.5	12	.010	.086	18
C100-L8	1.000	.730	12	.445	1.250	3.5	15	.010	.086	15
C100-L9	1.000	.730	12	.519	1.500	3.5	18	.010	.086	12
C100-L10	1.000	.730	12	.633	1.750	3.5	21	.010	.086	11
C100-L11	1.000	.730	12	.710	2.000	3.5	24	.010	.086	9
C100-M1	1.000	.730	18	.087	.250	3.5	3	.012	.094	110
C100-M2	1.000	.730	18	.113	.333	3.5	4	.012	.094	82
C100-M3	1.000	.730	18	.148	.417	3.5	5	.012	.094	67
C100-M4	1.000	.730	18	.175	.500	3.5	6	.012	.094	55
C100-M5	1.000	.730	18	.212	.583	3.5	7	.012	.094	49
C100-M6	1.000	.730	18	.276	.750	3.5	9	.012	.094	38
C100-M7	1.000	.730	18	.360	1.000	3.5	12	.012	.094	28
C100-M8	1.000	.730	18	.452	1.250	3.5	15	.012	.094	23
C100-M9	1.000	.730	18	.549	1.500	3.5	18	.012	.094	19
C100-M10	1.000	.730	18	.650	1.750	3.5	21	.012	.094	16
C100-M11	1.000	.730 .730	18 25	.720 .131	2.000	3.5 3.5	24 3	.012	.094	14 210
C100-H1 C100-H2	1.000	.730	25	.174	.333	3.5	4	.015	.094 .094	157
C100-H2	1.000	.730	25	.174	.333 .417	3.5	5	.015	.094	132
C100-H3	1.000	.730	25	.266	.500	3.5	6	.015	.094	107
C100-H5		.730	25	.319	.583	3.5	7	.015	.094	95
	1.000				.505			.015	.071	,,
	1.000 1.000				.750	3.5	9	.015	.094	73
C100-H6	1.000 1.000 1.000	.730	25	.406	.750 1.000	3.5 3.5	9 12	.015 .015	.094 .094	73 54
	1.000		25 25	.406 .541	1.000	3.5	12	.015 .015 .015	.094 .094 .094	73 54 45
C100-H6 C100-H7	1.000 1.000	.730 .730	25	.406		3.5 3.5		.015	.094	54
C100-H6 C100-H7 C100-H8	1.000 1.000 1.000	.730 .730 .730	25 25 25	.406 .541 .688	1.000 1.250	3.5	12 15	.015 .015	.094 .094	54 45



<sup>&</sup>lt;sup>2</sup> Add suffix "-S17" for 17-7 stainless steel.







<sup>&</sup>lt;sup>3</sup> Reference dimension.

<sup>&</sup>lt;sup>4</sup>Theoretical dimension; measured in lb/in.

<sup>&</sup>lt;sup>5</sup> See pages 126-127 for How to Order.

## Crest-To-Crest® Springs



**Product Dimensions** 

OPERATES IN BORE DIAMETER

FREE HEIGHT

LOAD AT WORK HEIGHT

FREE HEIGHT

LOAD AT WORK HEIGHT

All dimensions in inches unless otherwise specified.

– Shaft – Diameter

**Plain Ends** 

**Shim Ends** 

RADIAL

MULTI-WAVE (SEE TABLE)

WIRE THICKNESS

THICKNESS

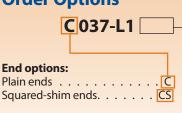
MULTI-WAVE (SEE TABLE)

TURNS

**Stock Items** in carbon steel and 17-7 PH/C stainless steel.

Smalley Part	Operates in Bore	Clears Shaft	Load	Work	Free	Number of	Number of		Radial	Spring
Number 1,2,5	Diameter	Diameter	(lb)	Height	Height <sup>3</sup>	Waves	Turns	Thickness	Wall	Rate 4
C112-L1	1.125	.850	12	.146	.300	3.5	3	.012	.094	78
C112-L2	1.125	.850	12	.186	.400	3.5	4	.012	.094	56
C112-L3 C112-L4	1.125 1.125	.850	12 12	.250 .295	.500 .600	3.5 3.5	5 6	.012 .012	.094	48 39
C112-L4 C112-L5	1.125	.850 .850	12	.344	.700	3.5	7	.012	.094	34
C112-L5	1.125	.850	12	.392	.800	3.5	8	.012	.094	29
C112-L7	1.125	.850	12	.488	1.000	3.5	10	.012	.094	23
C112-L8	1.125	.850	12	.659	1.300	3.5	13	.012	.094	19
C112-L9	1.125	.850	12	.807	1.600	3.5	16	.012	.094	15
C112-L10	1.125	.850	12	1.017	2.000	3.5	20	.012	.094	12
C112-M1 C112-M2	1.125 1.125	.850 .850	20 20	.160 .202	.300 .400	3.5 3.5	3 4	.015 .015	.094	143 101
C112-M2	1.125	.850	20	.202	.500	3.5	5	.015	.094	87
C112-M4	1.125	.850	20	.318	.600	3.5	6	.015	.094	71
C112-M5	1.125	.850	20	.381	.700	3.5	7	.015	.094	63
C112-M6	1.125	.850	20	.427	.800	3.5	8	.015	.094	54
C112-M7	1.125	.850	20	.536	1.000	3.5	10	.015	.094	43
C112-M8	1.125	.850	20	.708	1.300	3.5	13	.015	.094	34
C112-M9 C112-M10	1.125 1.125	.850 .850	20 20	.861 1.088	1.600 2.000	3.5 3.5	16 20	.015 .015	.094	27 22
C112-M10	1.125	.850	30	.178	.300	3.5	3	.015	.094	246
C112-H1	1.125	.850	30	.229	.400	3.5	4	.018	.094	175
C112-H3	1.125	.850	30	.303	.500	3.5	5	.018	.094	152
C112-H4	1.125	.850	30	.350	.600	3.5	6	.018	.094	120
C112-H5	1.125	.850	30	.421	.700	3.5	7	.018	.094	108
C112-H6	1.125	.850	30	.470	.800	3.5	8	.018	.094	91
C112-H7 C112-H8	1.125 1.125	.850	30	.593	1.000	3.5	10	.018	.094	74
C112-H8	1.125	.850 .850	30 30	.787 .956	1.600	3.5 3.5	13 16	.018 .018	.094 .094	58 47
C112-H10	1.125	.850	30	1.202	2.000	3.5	20	.018	.094	38
C125-L1	1.250	1.000	12	.084	.300	3.5	3	.012	.094	56
C125-L2	1.250	1.000	12	.113	.400	3.5	4	.012	.094	42
C125-L3	1.250	1.000	12	.149	.500	3.5	5	.012	.094	34
C125-L4	1.250	1.000	12	.172	.600	3.5	6	.012	.094	28
C125-L5 C125-L6	1.250 1.250	1.000 1.000	12 12	.207 .227	.700 .800	3.5 3.5	7 8	.012 .012	.094	24 21
C125-L7	1.250	1.000	12	.301	1.000	3.5	10	.012	.094	17
C125-L8	1.250	1.000	12	.395	1.300	3.5	13	.012	.094	13
C125-L9	1.250	1.000	12	.467	1.600	3.5	16	.012	.094	11
C125-L10	1.250	1.000	12	.591	2.000	3.5	20	.012	.094	9
C125-M1	1.250	1.000	20	.124	.300	3.5	3	.015	.094	114
C125-M2 C125-M3	1.250 1.250	1.000 1.000	20 20	.165 .215	.400 .500	3.5 3.5	4 5	.015 .015	.094 .094	85 70
C125-M3	1.250	1.000	20	.253	.600	3.5	6	.015	.094	58
C125-M5	1.250	1.000	20	.303	.700	3.5	7	.015	.094	50
C125-M6	1.250	1.000	20	.341	.800	3.5	8	.015	.094	44
C125-M7	1.250	1.000	20	.427	1.000	3.5	10	.015	.094	35
C125-M8	1.250	1.000	20	.577	1.300	3.5	13	.015	.094	28
C125-M9	1.250	1.000	20	.692	1.600	3.5	16	.015	.094	22
C125-M10 C125-H1	1.250 1.250	1.000	20 30	.866 .158	2.000	3.5 3.5	20	.015 .019	.094	18 210
C125-H1	1.250	1.000	30	.158	.400	3.5	3 4	.019	.094	158
C125-H3	1.250	1.000	30	.272	.500	3.5	5	.019	.094	132
C125-H4	1.250	1.000	30	.320	.600	3.5	6	.019	.094	107
C125-H5	1.250	1.000	30	.384	.700	3.5	7	.019	.094	95
C125-H6	1.250	1.000	30	.433	.800	3.5	8	.019	.094	82
C125-H7	1.250	1.000	30	.538	1.000	3.5	10	.019	.094	65
C125-H8	1.250	1.000	30 30	.717	1.300	3.5	13	.019	.094	51 42
C125-H9 C125-H10	1.250 1.250	1.000 1.000	30	.878 1.103	1.600 2.000	3.5 3.5	16 20	.019 .019	.094	33
C123-H10	1.230	1.000	30	1.103	2.000	٥.٥	20	.019	.074	33





Material option:

 $<sup>^{\</sup>rm 1}$  Use "C" prefix for plain ends. Use "CS" prefix for squared-shim ends.

<sup>&</sup>lt;sup>2</sup> Add suffix "-S17" for 17-7 stainless steel.

<sup>&</sup>lt;sup>3</sup> Reference dimension.

<sup>&</sup>lt;sup>4</sup> Theoretical dimension; measured in lb/in.

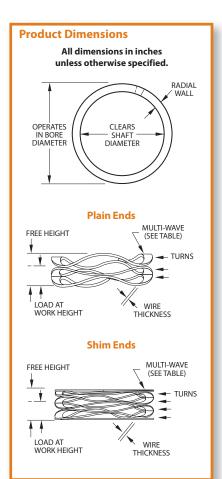
<sup>&</sup>lt;sup>5</sup> See pages 126-127 for How to Order.

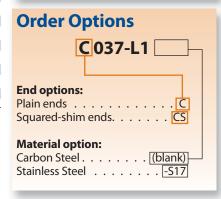


Constitute Davis	Operates	Clears	land	Work	Free	Number	Number		Dadial	Coning
Smalley Part Number 1, 2, 5	in Bore Diameter	Shaft Diameter	Load (lb)	Work Height	Free Height <sup>3</sup>	of Waves	of Turns	Thickness	Radial Wall	Spring Rate 4
C137-L1	1.375	1.030	15	.075	.300	3.5	3	.012	.122	67
C137-L2	1.375	1.030	15	.099	.400	3.5	4	.012	.122	50
C137-L3	1.375	1.030	15	.129	.500	3.5	5	.012	.122	40
C137-L4	1.375	1.030	15	.155	.600	3.5	6	.012	.122	34
C137-L5	1.375	1.030	15	.179	.700	3.5	7	.012	.122	29
C137-L6	1.375	1.030	15	.206	.800	3.5	8	.012	.122	25
C137-L7	1.375	1.030	15	.256	1.000	3.5	10	.012	.122	20
C137-L8	1.375	1.030	15	.341 .424	1.300	3.5	13	.012	.122	16
C137-L9 C137-L10	1.375 1.375	1.030 1.030	15 15	.530	1.600 2.000	3.5 3.5	16 20	.012 .012	.122 .122	13 10
C137-L10	1.375	1.030	25	.142	.300	3.5	3	.012	.133	158
C137-M2	1.375	1.030	25	.186	.400	3.5	4	.016	.133	117
C137-M3	1.375	1.030	25	.240	.500	3.5	5	.016	.133	96
C137-M4	1.375	1.030	25	.281	.600	3.5	6	.016	.133	78
C137-M5	1.375	1.030	25	.340	.700	3.5	7	.016	.133	69
C137-M6	1.375	1.030	25	.384	.800	3.5	8	.016	.133	60
C137-M7	1.375	1.030	25	.486	1.000	3.5	10	.016	.133	49
C137-M8	1.375	1.030	25	.632	1.300	3.5	13	.016	.133	37
C137-M9	1.375	1.030	25	.788	1.600	3.5	16	.016	.133	31
C137-M10	1.375	1.030	25	.982	2.000	3.5	20	.016	.133	25
C137-H1 C137-H2	1.375 1.375	1.030 1.030	35 35	.149 .189	.300 .400	3.5 3.5	3	.018 .018	.133 .133	232 166
C137-H2	1.375	1.030	35	.169	.500	3.5	5	.018	.133	138
C137-H3	1.375	1.030	35	.247	.600	3.5	6	.018	.133	112
C137-H5	1.375	1.030	35	.343	.700	3.5	7	.018	.133	98
C137-H6	1.375	1.030	35	.390	.800	3.5	8	.018	.133	85
C137-H7	1.375	1.030	35	.490	1.000	3.5	10	.018	.133	69
C137-H8	1.375	1.030	35	.646	1.300	3.5	13	.018	.133	54
C137-H9	1.375	1.030	35	.793	1.600	3.5	16	.018	.133	43
C137-H10	1.375	1.030	35	1.000	2.000	3.5	20	.018	.133	35
C150-L1	1.500	1.140	20	.129	.300	3.5	3	.016	.133	117
C150-L2	1.500	1.140	20	.164	.400	3.5	4	.016	.133	85
C150-L3 C150-L4	1.500 1.500	1.140 1.140	20 20	.213 .247	.500 .600	3.5 3.5	5 6	.016 .016	.133 .133	70 57
C150-L4	1.500	1.140	20	.301	.700	3.5	7	.016	.133	50
C150-L6	1.500	1.140	20	.337	.800	3.5	8	.016	.133	43
C150-L7	1.500	1.140	20	.430	1.000	3.5	10	.016	.133	35
C150-L8	1.500	1.140	20	.565	1.300	3.5	13	.016	.133	27
C150-L9	1.500	1.140	20	.694	1.600	3.5	16	.016	.133	22
C150-L10	1.500	1.140	20	.866	2.000	3.5	20	.016	.133	18
C150-M1	1.500	1.140	35	.122	.300	3.5	3	.018	.133	197
C150-M2	1.500	1.140	35	.158	.400	3.5	4	.018	.133	145
C150-M3	1.500	1.140	35	.206	.500	3.5	5	.018	.133	119
C150-M4	1.500	1.140	35	.241	.600	3.5	6	.018	.133	97
C150-M5	1.500	1.140	35	.291	.700	3.5	7	.018	.133	86
C150-M6 C150-M7	1.500 1.500	1.140 1.140	35 35	.324 .409	.800 1.000	3.5 3.5	8 10	.018 .018	.133 .133	74 59
C150-M7	1.500	1.140	35	.540	1.300	3.5	13	.018	.133	46
C150-M9	1.500	1.140	35	.657	1.600	3.5	16	.018	.133	37
C150-M10	1.500	1.140	35	.835	2.000	3.5	20	.018	.133	30
C150-H1	1.500	1.140	60	.166	.300	4.5	3	.018	.133	448
C150-H2	1.500	1.140	60	.216	.400	4.5	4	.018	.133	326
C150-H3	1.500	1.140	60	.278	.500	4.5	5	.018	.133	270
C150-H4	1.500	1.140	60	.329	.600	4.5	6	.018	.133	221
C150-H5	1.500	1.140	60	.390	.700	4.5	7	.018	.133	194
C150-H6	1.500	1.140	60	.443	.800	4.5	8	.018	.133	168
C150-H7	1.500	1.140	60	.555	1.000	4.5	10	.018	.133	135
C150-H8	1.500	1.140	60	.726	1.300	4.5	13	.018	.133	105
C150-H9	1.500	1.140	60	.890	1.600	4.5	16	.018	.133	85 69
C150-H10	1.500	1.140	60	1.119	2.000	4.5	20	.018	.133	68

 $<sup>^{\</sup>rm 1}$  Use "C" prefix for plain ends. Use "CS" prefix for squared-shim ends.







 $<sup>^{\</sup>rm 2}$  Add suffix "-S17" for 17-7 stainless steel.

<sup>&</sup>lt;sup>3</sup> Reference dimension.

<sup>&</sup>lt;sup>4</sup> Theoretical dimension; measured in lb/in.

<sup>&</sup>lt;sup>5</sup> See pages 126-127 for How to Order.

## Crest-To-Crest® Springs



**Product Dimensions** 

OPERATES IN BORE DIAMETER

FREE HEIGHT

LOAD AT WORK HEIGHT

FREE HEIGHT

LOAD AT WORK HEIGHT

All dimensions in inches unless otherwise specified.

> SHAFT DIAMETER

**Plain Ends** 

**Shim Ends** 

RADIAL

MULTI-WAVE (SEE TABLE)

WIRE THICKNESS

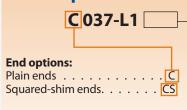
THICKNESS

MULTI-WAVE (SEE TABLE)

**Stock Items** in carbon steel and 17-7 PH/C stainless steel.

Smalley Part	Operates in Bore	Clears Shaft	Load	Work	Free	Number of	Number of		Radial	Spring
Number 1,2,5	Diameter	Diameter	(lb)	Height	Height <sup>3</sup>	Waves	Turns	Thickness	Wall	Rate 4
C175-L1	1.750	1.340	25	.155	.375	3.5	3	.018	.143	114
C175-L2	1.750	1.340	25	.200	.500	3.5	4	.018	.143	83
C175-L3	1.750 1.750	1.340	25	.265	.625	3.5	5	.018	.143	69
C175-L4 C175-L5	1.750	1.340 1.340	25 25	.310 .367	.750 .870	3.5 3.5	6 7	.018 .018	.143 .143	57 50
C175-L6	1.750	1.340	25	.415	1.000	3.5	8	.018	.143	43
C175-L7	1.750	1.340	25	.523	1.250	3.5	10	.018	.143	34
C175-L8	1.750	1.340	25	.638	1.500	3.5	12	.018	.143	29
C175-L9	1.750	1.340	25	.737	1.750	3.5	14	.018	.143	25
C175-L10 C175-M1	1.750 1.750	1.340 1.340	25 50	.844	2.000	3.5 4.5	16 3	.018	.143	22 267
C175-M1	1.750	1.340	50	.100	.500	4.5	3 4	.018	.143	195
C175-M3	1.750	1.340	50	.315	.625	4.5	5	.018	.143	161
C175-M4	1.750	1.340	50	.374	.750	4.5	6	.018	.143	133
C175-M5	1.750	1.340	50	.452	.870	4.5	7	.018	.143	120
C175-M6	1.750	1.340	50	.505	1.000	4.5	8	.018	.143	101
C175-M7 C175-M8	1.750 1.750	1.340 1.340	50 50	.629 .768	1.250 1.500	4.5 4.5	10 12	.018 .018	.143	81 68
C175-M8	1.750	1.340	50	.899	1.750	4.5	14	.018	.143 .143	59
C175-M10	1.750	1.340	50	1.026	2.000	4.5	16	.018	.143	51
C175-H1	1.750	1.340	90	.232	.375	4.5	3	.024	.148	629
C175-H2	1.750	1.340	90	.314	.500	4.5	4	.024	.148	484
C175-H3	1.750	1.340	90	.409	.625	4.5	5	.024	.148	417
C175-H4	1.750 1.750	1.340 1.340	90 90	.482 .577	.750 .870	4.5 4.5	6 7	.024 .024	.148 .148	336 307
C175-H5 C175-H6	1.750	1.340	90	.651	1.000	4.5	8	.024	.148	258
C175-H7	1.750	1.340	90	.813	1.250	4.5	10	.024	.148	206
C175-H8	1.750	1.340	90	.980	1.500	4.5	12	.024	.148	173
C175-H9	1.750	1.340	90	1.147	1.750	4.5	14	.024	.148	149
C175-H10	1.750	1.340	90	1.317	2.000	4.5	16	.024	.148	132
C200-L1 C200-L2	2.000	1.600 1.600	25 25	.094 .120	.375 .500	3.5 3.5	3 4	.018 .018	.143 .143	89 66
C200-L2	2.000	1.600	25	.158	.625	3.5	5	.018	.143	54
C200-L4	2.000	1.600	25	.179	.750	3.5	6	.018	.143	44
C200-L5	2.000	1.600	25	.217	.870	3.5	7	.018	.143	38
C200-L6	2.000	1.600	25	.243	1.000	3.5	8	.018	.143	33
C200-L7 C200-L8	2.000	1.600 1.600	25 25	.306 .365	1.250 1.500	3.5 3.5	10 12	.018 .018	.143 .143	26 22
C200-L9	2.000	1.600	25	.433	1.750	3.5	14	.018	.143	19
C200-L10	2.000	1.600	25	.490	2.000	3.5	16	.018	.143	17
C200-M1	2.000	1.600	50	.140	.375	4.5	3	.018	.143	213
C200-M2	2.000	1.600	50	.184	.500	4.5	4	.018	.143	158
C200-M3	2.000	1.600	50	.245	.625	4.5	5	.018	.143	132
C200-M4 C200-M5	2.000	1.600 1.600	50 50	.278 .345	.750 .870	4.5 4.5	6 7	.018 .018	.143 .143	106 95
C200-M6	2.000	1.600	50	.395	1.000	4.5	8	.018	.143	83
C200-M7	2.000	1.600	50	.498	1.250	4.5	10	.018	.143	66
C200-M8	2.000	1.600	50	.593	1.500	4.5	12	.018	.143	55
C200-M9	2.000	1.600	50	.694	1.750	4.5	14	.018	.143	47
C200-M10	2.000	1.600	50	.800	2.000	4.5	16	.018	.143	42
C200-H1 C200-H2	2.000 2.000	1.600 1.600	90 90	.197 .258	.375 .500	4.5 4.5	3 4	.024 .024	.148 .148	506 372
C200-H2	2.000	1.600	90	.332	.625	4.5	5	.024	.148	307
C200-H4	2.000	1.600	90	.389	.750	4.5	6	.024	.148	249
C200-H5	2.000	1.600	90	.465	.870	4.5	7	.024	.148	222
C200-H6	2.000	1.600	90	.525	1.000	4.5	8	.024	.148	189
C200-H7	2.000	1.600	90	.661	1.250	4.5	10	.024	.148	153
C200-H8 C200-H9	2.000 2.000	1.600 1.600	90 90	.781 .941	1.500 1.750	4.5 4.5	12 14	.024 .024	.148 .148	125 111
C200-H9	2.000	1.600	90	1.069	2.000	4.5	16	.024	.148	97
2200 1110	2.000	1.000	70	1.000	2.000	1.5	.0	.021	.1-10	91

#### **Order Options**



**Material option:** 

Carbon Steel . . . . . . (blank) Stainless Steel . . . . . . . . -S17

<sup>&</sup>lt;sup>1</sup> Use "C" prefix for plain ends. Use "CS" prefix for squared-shim ends.

<sup>&</sup>lt;sup>2</sup> Add suffix "-S17" for 17-7 stainless steel.

<sup>&</sup>lt;sup>3</sup> Reference dimension.

<sup>&</sup>lt;sup>4</sup> Theoretical dimension; measured in lb/in.

 $<sup>^{\</sup>rm 5}$  See pages 126-127 for How to Order.

Архангельск (8182)63-90-72 Астана (7172)727-132 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Волоград (8472)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Краснодар (861)203-40-90 Красноярск (391)204-63-61 Курск (4712)77-13-04 Липецк (4742)52-20-81 Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (3843)20-46-81 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35 Тверь (4822)63-31-35 Томск (3822)98-41-53 Тула (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Ярославль (4852)69-52-93