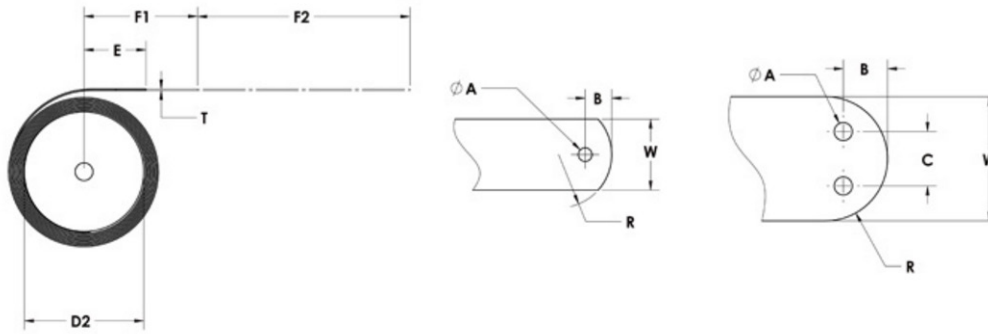




## Standard Spring Design Guide

### Constant Force Springs

Fatigue Life 2,500 Cycles Minimum



Materials: 301 High Yield Stainless Steel.  
Dimensions below are shown in inches.

Part #	Load Lbs. ± 10%	Drum* Dia. (D2)	Free ID (Ref.)	F1	F2	Thickness (T)	Width (W)	Band	# of Holes	R.	A Dia.	B	C	E
SH3C10	00.37	0.261	0.218	0.4	8	0.003	0.187	10	1	0.16	0.095	0.098	-	0.16
SH4C14	00.49	0.349	0.291	0.5	12	0.004	0.187	14	1	0.16	0.095	0.098	-	0.16
SH4D14	00.66	0.349	0.291	0.5	12	0.004	0.250	14	1	0.22	0.131	0.187	-	0.22
SH4E14	00.83	0.349	0.291	0.5	12	0.004	0.312	14	1	0.22	0.131	0.187	-	0.22
SH5E15	01.03	0.436	0.363	0.7	12	0.005	0.312	15	1	0.22	0.131	0.187	-	0.22
SH6F21	01.48	0.523	0.436	0.8	18	0.006	0.375	21	1	0.50	0.191	0.344	-	0.25
SH6G21	01.97	0.523	0.436	0.8	18	0.006	0.500	21	1	0.50	0.191	0.344	-	0.25
SH8G28	02.63	0.697	0.581	1.1	24	0.008	0.500	28	1	0.50	0.191	0.344	-	0.38
SH8J28	03.29	0.697	0.581	1.1	24	0.008	0.625	28	1	0.50	0.191	0.344	-	0.38
SH10J29	04.12	0.873	0.727	1.3	24	0.010	0.625	29	1	0.50	0.191	0.344	-	0.44
SH10K29	04.95	0.873	0.727	1.3	24	0.010	0.750	29	1	0.50	0.191	0.344	-	0.44
SH12K36	05.94	1.050	0.873	1.6	30	0.012	0.750	36	1	0.50	0.191	0.344	-	0.50
SH12P36	07.92	1.050	0.873	1.6	30	0.012	1.000	36	1	1.03	0.193	0.375	-	0.75
SH16P38	10.60	1.400	1.160	2.1	30	0.016	1.000	38	1	1.03	0.193	0.375	-	0.75
SH20R47	16.50	1.750	1.460	2.6	36	0.020	1.250	47	1	1.03	0.193	0.375	-	0.88
SH20S47	19.80	1.750	1.460	2.6	36	0.020	1.500	47	2	1.03	0.256	0.625	0.766	0.88
SH25S48	24.80	2.180	1.820	3.3	36	0.025	1.500	48	2	1.03	0.256	0.625	0.766	1.13
SH25U48	33.00	2.180	1.820	3.3	36	0.025	2.000	48	2	1.03	0.256	0.625	0.766	1.13
SH31U58	40.90	2.710	2.260	4.0	42	0.031	2.000	58	2	1.03	0.256	0.625	0.766	1.25