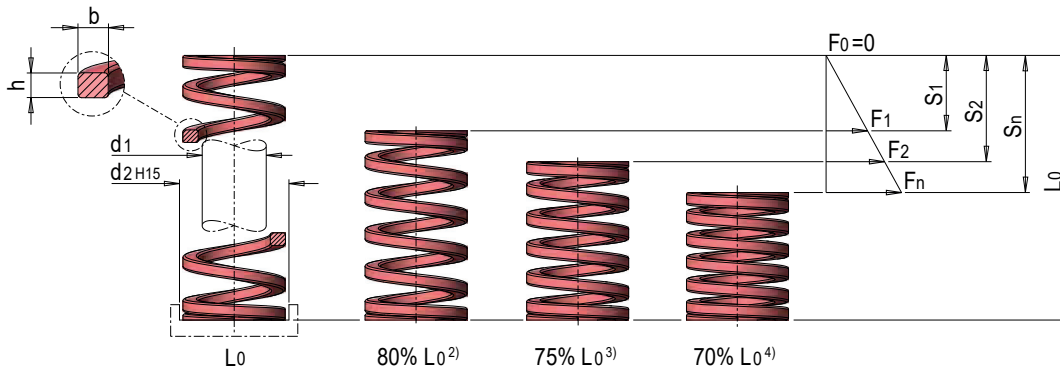


E 1544



Systemdruckfeder, hohe Belastung, rot

System compression spring, heavy load, red



DIN ISO 10243

t max. = 250°C⁵⁾

c [N/mm] ¹⁾	F1 [N]	S1	F2 [N]	S2	Fn [N]	Sn	b	h	d1	d2	Lo	Nr. / No.				
23	115	5	144.9	6.3	172.5	7.5	1.9	1.5	5	10	25	E 1544/10 x 25				
17.5	112	6.4	140	8	168	9.6					32	E 1544/10 x 32				
14.8	112.5	7.6	140.6	9.5	168.7	11.4					38	E 1544/10 x 38				
13	114.4	8.8	143	11	171.6	13.2					44	E 1544/10 x 44				
11.2	114.2	10.2	143.4	12.8	171.4	15.3					51	E 1544/10 x 51				
9.2	117.8	12.8	147.2	16	176.6	19.2					64	E 1544/10 x 64				
7.5	114	15.2	143	19	171	22.8					76	E 1544/10 x 76				
1.9	115.9	61	145	76.3	173.9	91.5					305	E 1544/10 x 305				
42.1	211	5	265	6.3	316	7.5					2.4	1.9	6.3	12.5	25	E 1544/12,5 x 25
33.2	212	6.4	266	8	319	9.6									32	E 1544/12,5 x 32
29.3	223	7.6	278	9.5	334	11.4	38	E 1544/12,5 x 38								
24.6	216	8.8	271	11	325	13.2	44	E 1544/12,5 x 44								
19.6	200	10.2	251	12.8	300	15.3	51	E 1544/12,5 x 51								
15	192	12.8	240	16	288	19.2	64	E 1544/12,5 x 64								
13.2	201	15.2	251	19	301	22.8	76	E 1544/12,5 x 76								
11.4	203	17.8	254	22.3	304	26.7	89	E 1544/12,5 x 89								
3.2	195	61	244	76.3	293	91.5	305	E 1544/12,5 x 305								
75.7	379	5	477	6.3	568	7.5	3.1	2.5	8	16					25	E 1544/16 x 25
60.2	385	6.4	482	8	578	9.6					32	E 1544/16 x 32				
50.8	386	7.6	483	9.5	579	11.4					38	E 1544/16 x 38				
42.8	377	8.8	471	11	565	13.2					44	E 1544/16 x 44				
37.1	378	10.2	475	12.8	568	15.3					51	E 1544/16 x 51				
30.3	388	12.8	485	16	582	19.2					64	E 1544/16 x 64				
25.7	391	15.2	488	19	586	22.8					76	E 1544/16 x 76				
21.7	386	17.8	484	22.3	579	26.7					89	E 1544/16 x 89				
18.9		20.4	482	25.5	578	30.6					102	E 1544/16 x 102				
6.3	384	61	481	76.3	577	91.5					305	E 1544/16 x 305				
216	1080	5	1361	6.3	1620	7.5	4	3.3	10	20	25	E 1544/20 x 25				
168	1075	6.4	1344	8	1613	9.6					32	E 1544/20 x 32				
129	980	7.6	1226	9.5	1471	11.4					38	E 1544/20 x 38				
112	986	8.8	1232	11	1478	13.2					44	E 1544/20 x 44				
94	959	10.2	1203	12.8	1438	15.3					51	E 1544/20 x 51				
72.1	923	12.8	1154	16	1384	19.2					64	E 1544/20 x 64				
59.7	907	15.2	1134	19	1361	22.8					76	E 1544/20 x 76				
50.5	899	17.8	1126	22.3	1348	26.7					89	E 1544/20 x 89				
44.2	902	20.4	1127	25.5	1353	30.6					102	E 1544/20 x 102				
38.4	883	23	1106	28.8	1325	34.5					115	E 1544/20 x 115				
34.1	866	25.4	1084	31.8	1299	38.1	127	E 1544/20 x 127								
31	862	27.8	1079	34.8	1293	41.7	139	E 1544/20 x 139								
28.2	857	30.4	1072	38	1286	45.6	152	E 1544/20 x 152								
14	854	61	1068	76.3	1281	91.5	305	E 1544/20 x 305								
375	1875	5	2363	6.3	2813	7.5	5.5	4.2	12.5	25	25	E 1544/25 x 25				
297	1901	6.4	2376	8	2851	9.6					32	E 1544/25 x 32				
219	1664	7.6	2081	9.5	2497	11.4					38	E 1544/25 x 38				
187	1646	8.8	2057	11	2468	13.2					44	E 1544/25 x 44				
156	1591	10.2	1997	12.8	2387	15.3					51	E 1544/25 x 51				
123	1574	12.8	1968	16	2362	19.2					64	E 1544/25 x 64				
99	1505	15.2	1881	19	2257	22.8					76	E 1544/25 x 76				
84	1495	17.8	1873	22.3	2243	26.7					89	E 1544/25 x 89				
73	1489	20.4	1862	25.5	2234	30.6					102	E 1544/25 x 102				
65	1495	23	1872	28.8	2243	34.5					115	E 1544/25 x 115				
57.7	1466	25.4	1835	31.8	2198	38.1	127	E 1544/25 x 127								
52.7	1465	27.8	1834	34.8		41.7	139	E 1544/25 x 139								
47.8	1453	30.4	1816	38	2180	45.6	152	E 1544/25 x 152								
41	1460	35.6	1825	44.5	2189	53.4	178	E 1544/25 x 178								
35.8	1453	40.6	1819	50.8	2180	60.9	203	E 1544/25 x 203								
22.9	1397	61	1747	76.3	2095	91.5	305	E 1544/25 x 305								
388	2949	7.6	3686	9.5	4423	11.4	7.1	5.4	16	32	38	E 1544/32 x 38				
324	2851	8.8	3564	11	4277	13.2					44	E 1544/32 x 44				
272	2774	10.2	3482	12.8	4162	15.3					51	E 1544/32 x 51				
212	2714	12.8	3392	16	4070	19.2					64	E 1544/32 x 64				



c [N/mm] ¹⁾	F1 [N]	S1	F2 [N]	S2	Fn [N]	Sn	b	h	d1	d2	Lo	Nr. / No.				
172	2614	15.2	3268	19	3922	22.8	7.1	5.4	16	32	76	E 1544/32 x 76				
141	2510	17.8	3144	22.3	3765	26.7					89	E 1544/32 x 89				
122	2489	20.4	3111	25.5	3733	30.6					102	E 1544/32 x 102				
107	2461	23	3082	28.8	3692	34.5					115	E 1544/32 x 115				
93	2362	25.4	2957	31.8	3543	38.1					127	E 1544/32 x 127				
86	2391	27.8	2993	34.8	3586	41.7					139	E 1544/32 x 139				
78	2371	30.4	2964	38	3557	45.6					152	E 1544/32 x 152				
67.2	2392	35.6	2990	44.5	3588	53.4					178	E 1544/32 x 178				
59.1	2399	40.6	3002	50.8	3599	60.9					203	E 1544/32 x 203				
46.4	2357	50.8	2946	63.5	3536	76.2					254	E 1544/32 x 254				
38	2318	61	2899	76.3	3477	91.5					305	E 1544/32 x 305				
350	3570	10.2	4480	12.8	5355	15.3					8.4	6.2	20	40	51	E 1544/40 x 51
269	3443	12.8	4304	16	5165	19.2									64	E 1544/40 x 64
219	3329	15.2	4161	19	4993	22.8									76	E 1544/40 x 76
190	3382	17.8	4237	22.3	5073	26.7	89	E 1544/40 x 89								
163	3325	20.4	4157	25.5	4988	30.6	102	E 1544/40 x 102								
142	3266	23	4090	28.8	4899	34.5	115	E 1544/40 x 115								
128	3251	25.4	4070	31.8	4877	38.1	127	E 1544/40 x 127								
115	3197	27.8	4002	34.8	4796	41.7	139	E 1544/40 x 139								
105	3192	30.4	3990	38	4788	45.6	152	E 1544/40 x 152								
89	3168	35.6	3961	44.5	4753	53.4	178	E 1544/40 x 178								
77	3126	40.6	3912	50.8	4689	60.9	203	E 1544/40 x 203								
61	3099	50.8	3874	63.5	4648	76.2	254	E 1544/40 x 254								
51	3111	61	3891	76.3	4667	91.5	305	E 1544/40 x 305								
413	5286	12.8	6608	16	7930	19.2	11.1	7.6	25	50					64	E 1544/50 x 64
339	5153	15.2	6441	19	7729	22.8					76	E 1544/50 x 76				
288	5126	17.8	6422	22.3	7690	26.7					89	E 1544/50 x 89				
245	4998	20.4	6248	25.5	7497	30.6					102	E 1544/50 x 102				
215	4945	23	6192	28.8	7418	34.5					115	E 1544/50 x 115				
192	4877	25.4	6106	31.8	7315	38.1					127	E 1544/50 x 127				
168	4670	27.8	5846	34.8	7006	41.7					139	E 1544/50 x 139				
154	4682	30.4	5852	38	7022	45.6					152	E 1544/50 x 152				
134	4770	35.6	5963	44.5	7156	53.4					178	E 1544/50 x 178				
117	4750	40.6	5944	50.8	7125	60.9					203	E 1544/50 x 203				
89	4521	50.8	5652	63.5	6782	76.2					254	E 1544/50 x 254				
73	4453	61	5570	76.3	6680	91.5					305	E 1544/50 x 305				
618	9394	15.2	11742	19	14090	22.8					11.6	12.3	38	63	76	E 1544/63 x 76
515	9167	17.8	11485	22.3	13751	26.7									89	E 1544/63 x 89
438	8935	20.4	11169	25.5	13403	30.6	102	E 1544/63 x 102								
370	8510	23	10656	28.8	12765	34.5	115	E 1544/63 x 115								
333	8458	25.4	10589	31.8	12687	38.1	127	E 1544/63 x 127								
269	8178	30.4	10222	38	12266	45.6	152	E 1544/63 x 152								
226	8046	35.6	10057	44.5	12068	53.4	178	E 1544/63 x 178								
198	8039	40.6	10058	50.8	12058	60.9	203	E 1544/63 x 203								
155	7874	50.8	9843	63.5	11811	76.2	254	E 1544/63 x 254								
128	7808	61	9766	76.3	11712	91.5	305	E 1544/63 x 305								

1) c: Federrate (Kraftzunahme pro mm Federweg) / c: spring rate (load increase per mm spring travel)

2) 80% Lo \triangleq S1=20% Lo: Lange Lebensdauer (>3 Mio. Lastwechsel) / 80% Lo \triangleq S1=20% Lo: long service life (>3 million changes of load)

3) 75% Lo \triangleq S2=25% Lo: Mittlere Lebensdauer (~1.5 Mio. Lastwechsel) / 75% Lo \triangleq S2=25% Lo: medium service life (~1.5 million changes of load)

4) 70% Lo \triangleq Sn=30% Lo: Max. zulässiger Federweg (~200.000 Lastwechsel) / 70% Lo \triangleq Sn=30% Lo: maximum travel (~200.000 changes of load)

5) t max. = 250°C: Ab 120°C: 1%-2% Spannungsverlust pro 40°C / t max. = 250°C: from 120°C: loss of spring load is 1%-2% per 40°C



1 N = 0.1 daN = 0.102 kg