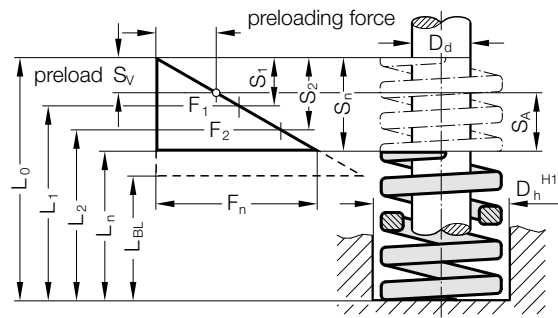


# HIGH PERFORMANCE COMPRESSION SPRING, XLF, COLOUR YELLOW, DIN ISO 10243

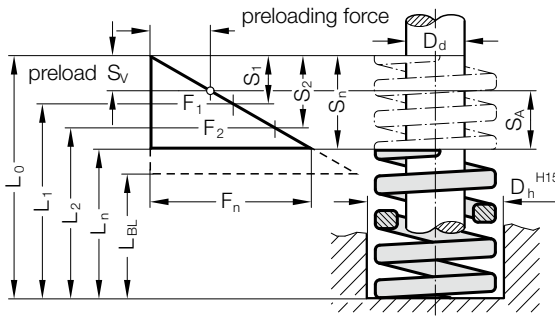


- $D_h$  = diameter of guide sleeve
- $D_d$  = diameter of guide pin
- $L_0$  = free length of spring
- $L_1...L_n$  = length of loaded spring (mm) as related to spring forces  $F_1...F_n$
- $L_{BL}$  = length of compacted spring (i.e. wire-to-wire)
- $F_1...F_n$  = forces (N) as related to length of spring  $L_1...L_n$
- $S_{V1}...S_{V7}$  = recommend. preload, compression, as relat. to compress.  $S_1...S_7$
- $S_1...S_n$  = compr. as related to spring forces  $F_1...F_n$
- $R$  = spring rate (N/mm)
- $S_{A1}...S_{A7}$  = working stroke (mm)

## 241.17. High performance compression spring, XLF, Colour Yellow, DIN ISO 10243

Order No	$D_h$	$D_d$	$L_0$	R	45%			62%			80%			100%				
					$S_{V1}$	$S_{A1}$	$F_1$	$S_2$	$S_{V2}$	$S_{A2}$	$F_2$	$S_3$	$S_{V3}$	$S_{A3}$	$F_3$	$S_n$	$F_n$	
241.17.10.025	10	5	25	36.8	3.5	1	2.5	129	4.8	2.3	2.5	178	6.2	4.5	1.7	230	7.8	287
241.17.10.032	10	5	32	27.9	4.5	1.3	3.2	126	6.2	3	3.2	173	8	5.8	2.2	223	10	279
241.17.10.038	10	5	38	23.7	5.4	1.5	3.8	127	7.4	3.6	3.8	175	9.5	6.9	2.6	226	11.9	282
241.17.10.044	10	5	44	19.2	6.2	1.8	4.4	119	8.6	4.1	4.4	164	11	8	3	212	13.8	265
241.17.10.051	10	5	51	16.5	7.2	2.1	5.1	118	9.9	4.8	5.1	163	12.7	9.2	3.5	210	15.9	262
241.17.10.064	10	5	64	13.2	9	2.6	6.4	119	12.4	6	6.4	164	16	11.6	4.4	211	20	264
241.17.10.076	10	5	76	10.9	10.7	3.1	7.6	117	14.8	7.1	7.6	161	19	13.8	5.2	208	23.8	259
241.17.10.305	10	5	305	2.6	42.9	12.4	30.5	112	59.1	28.6	30.5	154	76.3	55.3	21	198	95.4	248
241.17.13.025	12.5	6.3	25	58.5	3.5	1	2.5	205	4.8	2.3	2.5	283	6.2	4.5	1.7	365	7.8	456
241.17.13.032	12.5	6.3	32	43.9	4.5	1.3	3.2	198	6.2	3	3.2	272	8	5.8	2.2	351	10	439
241.17.13.038	12.5	6.3	38	36	5.4	1.5	3.8	193	7.4	3.6	3.8	266	9.5	6.9	2.6	343	11.9	428
241.17.13.044	12.5	6.3	44	30.3	6.2	1.8	4.4	188	8.6	4.1	4.4	259	11	8	3	335	13.8	418
241.17.13.051	12.5	6.3	51	26.2	7.2	2.1	5.1	187	9.9	4.8	5.1	258	12.7	9.2	3.5	333	15.9	417
241.17.13.064	12.5	6.3	64	21.2	9	2.6	6.4	191	12.4	6	6.4	263	16	11.6	4.4	339	20	424
241.17.13.076	12.5	6.3	76	17.1	10.7	3.1	7.6	183	14.8	7.1	7.6	252	19	13.8	5.2	326	23.8	407
241.17.13.089	12.5	6.3	89	14.5	12.5	3.6	8.9	181	17.2	8.3	8.9	250	22.2	16.1	6.1	322	27.8	403
241.17.13.305	12.5	6.3	305	4.3	42.9	12.4	30.5	185	59.1	28.6	30.5	254	76.3	55.3	21	328	95.4	410
241.17.16.025	16	8	25	118	3.5	1	2.5	414	4.8	2.3	2.5	571	6.2	4.5	1.7	736	7.8	920
241.17.16.032	16	8	32	89	4.5	1.3	3.2	400	6.2	3	3.2	552	8	5.8	2.2	712	10	890
241.17.16.038	16	8	38	72.1	5.4	1.5	3.8	386	7.4	3.6	3.8	532	9.5	6.9	2.6	686	11.9	858
241.17.16.044	16	8	44	60.9	6.2	1.8	4.4	378	8.6	4.1	4.4	521	11	8	3	672	13.8	840
241.17.16.051	16	8	51	52.3	7.2	2.1	5.1	374	9.9	4.8	5.1	516	12.7	9.2	3.5	665	15.9	832
241.17.16.064	16	8	64	41.2	9	2.6	6.4	371	12.4	6	6.4	511	16	11.6	4.4	659	20	824
241.17.16.076	16	8	76	34.1	10.7	3.1	7.6	365	14.8	7.1	7.6	503	19	13.8	5.2	649	23.8	812
241.17.16.089	16	8	89	29.5	12.5	3.6	8.9	369	17.2	8.3	8.9	508	22.2	16.1	6.1	656	27.8	820
241.17.16.102	16	8	102	25.6	14.4	4.1	10.2	367	19.8	9.6	10.2	506	25.5	18.5	7	653	31.9	817
241.17.16.305	16	8	305	8.4	42.9	12.4	30.5	361	59.1	28.6	30.5	497	76.3	55.3	21	641	95.4	801
241.17.20.025	20	10	25	293	3.5	1	2.5	1028	4.8	2.3	2.5	1417	6.2	4.5	1.7	1828	7.8	2285
241.17.20.032	20	10	32	224	4.5	1.3	3.2	1008	6.2	3	3.2	1389	8	5.8	2.2	1792	10	2240
241.17.20.038	20	10	38	177	5.4	1.5	3.8	948	7.4	3.6	3.8	1306	9.5	6.9	2.6	1685	11.9	2106
241.17.20.044	20	10	44	149	6.2	1.8	4.4	925	8.6	4.1	4.4	1275	11	8	3	1645	13.8	2056
241.17.20.051	20	10	51	128	7.2	2.1	5.1	916	9.9	4.8	5.1	1262	12.7	9.2	3.5	1628	15.9	2035
241.17.20.064	20	10	64	99	9	2.6	6.4	891	12.4	6	6.4	1228	16	11.6	4.4	1584	20	1980
241.17.20.076	20	10	76	81.7	10.7	3.1	7.6	875	14.8	7.1	7.6	1206	19	13.8	5.2	1556	23.8	1944
241.17.20.089	20	10	89	69.5	12.5	3.6	8.9	869	17.2	8.3	8.9	1198	22.2	16.1	6.1	1546	27.8	1932
241.17.20.102	20	10	102	60.6	14.4	4.1	10.2	870	19.8	9.6	10.2	1199	25.5	18.5	7	1547	31.9	1933
241.17.20.115	20	10	115	53	16.2	4.7	11.5	856	22.3	10.8	11.5	1180	28.7	20.8	7.9	1522	35.9	1903
241.17.20.127	20	10	127	47.5	17.8	5.1	12.7	846	24.6	11.9	12.7	1166	31.7	23	8.7	1505	39.6	1881
241.17.20.139	20	10	139	43	19.5	5.6	13.9	840	26.9	13	13.9	1157	34.7	25.2	9.5	1493	43.4	1866
241.17.20.152	20	10	152	39	21.4	6.2	15.2	834	29.4	14.2	15.2	1149	38	27.6	10.4	1482	47.5	1852
241.17.20.305	20	10	305	20	42.9	12.4	30.5	859	59.1	28.6	30.5	1183	76.3	55.3	21	1526	95.4	1908
241.17.25.025	25	12.5	25	459	3.5	1	2.5	1611	4.8	2.3	2.5	2220	6.2	4.5	1.7	2864	7.8	3580
241.17.25.032	25	12.5	32	374	4.5	1.3	3.2	1683	6.2	3	3.2	2319	8	5.8	2.2	2992	10	3740
241.17.25.038	25	12.5	38	300	5.4	1.5	3.8	1606	7.4	3.6	3.8	2213	9.5	6.9	2.6	2856	11.9	3570
241.17.25.044	25	12.5	44	244	6.2	1.8	4.4	1515	8.6	4.1	4.4	2088	11	8	3	2694	13.8	3367
241.17.25.051	25	12.5	51	208	7.2	2.1	5.1	1488	9.9	4.8	5.1	2050	12.7	9.2	3.5	2646	15.9	3307
241.17.25.064	25	12.5	64	161	9	2.6	6.4	1449	12.4	6	6.4	1996	16	11.6	4.4	2576	20	3220
241.17.25.076	25	12.5	76	131	10.7	3.1	7.6	1403	14.8	7.1	7.6	1933	19	13.8	5.2	2494	23.8	3118
241.17.25.089	25	12.5	89	111	12.5	3.6	8.9	1389	17.2	8.3	8.9	1913	22.2	16.1	6.1	2469	27.8	3086
241.17.25.102	25	12.5	102	96.3	14.4	4.1	10.2	1382	19.8	9.6	10.2	1905	25.5	18.5	7	2458	31.9	3072
241.17.25.115	25	12.5	115	85.7	16.2	4.7	11.5	1384	22.3	10.8	11.5	1908	28.7	20.8	7.9	2461	35.9	3077
241.17.25.127	25	12.5	127	76.3	17.8	5.1	12.7	1360	24.6	11.9	12.7	1873	31.7	23	8.7	2417	39.6	3021
241.17.25.139	25	12.5	139	66	19.5	5.6	13.9	1289	26.9	13	13.9	1776	34.7	25.2	9.5	2292	43.4	2864
241.17.25.152	25	12.5	152	63.5	21.4	6.2	15.2	1357	29.4	14.2	15.2	1870	38	27.6	10.4	2413	47.5	3016
241.17.25.178	25	12.5	178	53.9	25	7.2	17.8	1349	34.5	16.7	17.8	1858	44.5	32.2	12.2	2397	55.6	2997
241.17.25.203	25	12.5	203	47	28.5	8.2	20.3	1341	39.3	19	20.3	1847	50.7	36.8	13.9	2384	63.4	2980
241.17.25.305	25	12.5	305	30.9	42.9	12.4	30.5	1327	59.1	28.6	30.5	1828	76.3	55.3	21	2358	95.4	2948

# HIGH PERFORMANCE COMPRESSION SPRING, XLF, COLOUR YELLOW, DIN ISO 10243



- $D_h$  = diameter of guide sleeve
- $D_d$  = diameter of guide pin
- $L_0$  = free length of spring
- $L_1...L_n$  = length of loaded spring (mm) as related to spring forces  $F_1...F_n$
- $L_{BL}$  = length of compacted spring (i.e. wire-to-wire)
- $F_1...F_n$  = forces (N) as related to length of spring  $L_1...L_n$
- $S_{V1}...S_{V7}$  = recommend. preload. compression, as relat. to compress.  $S_1...S_7$
- $S_1...S_n$  = compr. as related to spring forces  $F_1...F_n$
- $R$  = spring rate (N/mm)
- $S_{A1}...S_{A7}$  = working stroke (mm)



## 241.17. High performance compression spring, XLF, Colour Yellow, DIN ISO 10243

Order No	$D_h$	$D_d$	$L_0$	R	45%			62%			80%			100%				
					$S_1$	$S_{V1}$	$S_{A1}$	$F_1$	$S_2$	$S_{V2}$	$S_{A2}$	$F_2$	$S_3$	$S_{V3}$	$S_{A3}$	$F_3$	$S_n$	$F_n$
241.17.32.038	32	16	38	480	5.4	1.5	3.8	2570	7.4	3.6	3.8	3541	9.5	6.9	2.6	4570	11.9	5712
241.17.32.044	32	16	44	390	6.2	1.8	4.4	2422	8.6	4.1	4.4	3337	11	8	3	4306	13.8	5382
241.17.32.051	32	16	51	336	7.2	2.1	5.1	2404	9.9	4.8	5.1	3312	12.7	9.2	3.5	4274	15.9	5342
241.17.32.064	32	16	64	269	9	2.6	6.4	2421	12.4	6	6.4	3336	16	11.6	4.4	4304	20	5380
241.17.32.076	32	16	76	219	10.7	3.1	7.6	2345	14.8	7.1	7.6	3232	19	13.8	5.2	4170	23.8	5212
241.17.32.089	32	16	89	180	12.5	3.6	8.9	2252	17.2	8.3	8.9	3102	22.2	16.1	6.1	4003	27.8	5004
241.17.32.102	32	16	102	155	14.4	4.1	10.2	2225	19.8	9.6	10.2	3066	25.5	18.5	7	3956	31.9	4944
241.17.32.115	32	16	115	140	16.2	4.7	11.5	2262	22.3	10.8	11.5	3116	28.7	20.8	7.9	4021	35.9	5026
241.17.32.127	32	16	127	124	17.8	5.1	12.7	2210	24.6	11.9	12.7	3044	31.7	23	8.7	3928	39.6	4910
241.17.32.139	32	16	139	112	19.5	5.6	13.9	2187	26.9	13	13.9	3014	34.7	25.2	9.5	3889	43.4	4861
241.17.32.152	32	16	152	102	21.4	6.2	15.2	2180	29.4	14.2	15.2	3004	38	27.6	10.4	3876	47.5	4845
241.17.32.178	32	16	178	88.2	25	7.2	17.8	2207	34.5	16.7	17.8	3040	44.5	32.2	12.2	3923	55.6	4904
241.17.32.203	32	16	203	76	28.5	8.2	20.3	2168	39.3	19	20.3	2987	50.7	36.8	13.9	3855	63.4	4818
241.17.32.254	32	16	254	60.8	36	10.4	25.6	2189	49.6	24	25.6	3016	64	46.4	17.6	3891	80	4864
241.17.32.305	32	16	305	49	42.9	12.4	30.5	2104	59.1	28.6	30.5	2898	76.3	55.3	21	3740	95.4	4675
241.17.40.051	40	20	51	628	7.2	2.1	5.1	4493	9.9	4.8	5.1	6191	12.7	9.2	3.5	7988	15.9	9985
241.17.40.064	40	20	64	487	9	2.6	6.4	4383	12.4	6	6.4	6039	16	11.6	4.4	7792	20	9740
241.17.40.076	40	20	76	379	10.7	3.1	7.6	4059	14.8	7.1	7.6	5593	19	13.8	5.2	7216	23.8	9020
241.17.40.089	40	20	89	321	12.5	3.6	8.9	4016	17.2	8.3	8.9	5533	22.2	16.1	6.1	7199	27.8	8924
241.17.40.102	40	20	102	281	14.4	4.1	10.2	4034	19.8	9.6	10.2	5558	25.5	18.5	7	7171	31.9	8964
241.17.40.115	40	20	115	245	16.2	4.7	11.5	3958	22.3	10.8	11.5	5453	28.7	20.8	7.9	7036	35.9	8796
241.17.40.127	40	20	127	221	17.8	5.1	12.7	3938	24.6	11.9	12.7	5426	31.7	23	8.7	7001	39.6	8752
241.17.40.139	40	20	139	185	19.5	5.6	13.9	3613	26.9	13	13.9	4978	34.7	25.2	9.5	6423	43.4	8029
241.17.40.152	40	20	152	168	21.4	6.2	15.2	3591	29.4	14.2	15.2	4948	38	27.6	10.4	6384	47.5	7980
241.17.40.178	40	20	178	150	25	7.2	17.8	3753	34.5	16.7	17.8	5171	44.5	32.2	12.2	6672	55.6	8340
241.17.40.203	40	20	203	132	28.5	8.2	20.3	3766	39.3	19	20.3	5189	50.7	36.8	13.9	6695	63.4	8369
241.17.40.254	40	20	254	107	36	10.4	25.6	3852	49.6	24	25.6	5307	64	46.4	17.6	6848	80	8560
241.17.40.305	40	20	305	87.8	43.1	12.5	30.7	3785	59.4	28.7	30.7	5215	76.6	55.6	21.1	6729	95.8	8411
241.17.50.064	50	25	64	709	9	2.6	6.4	6381	12.4	6	6.4	8792	16	11.6	4.4	11344	20	14180
241.17.50.076	50	25	76	572	10.7	3.1	7.6	6126	14.8	7.1	7.6	8440	19	13.8	5.2	10891	23.8	13614
241.17.50.089	50	25	89	475	12.5	3.6	8.9	5942	17.2	8.3	8.9	8187	22.2	16.1	6.1	10564	27.8	13205
241.17.50.102	50	25	102	405	14.4	4.1	10.2	5814	19.8	9.6	10.2	8010	25.5	18.5	7	10336	31.9	12920
241.17.50.115	50	25	115	352	16.2	4.7	11.5	5687	22.3	10.8	11.5	7835	28.7	20.8	7.9	10109	35.9	12637
241.17.50.127	50	25	127	316	17.8	5.1	12.7	5631	24.6	11.9	12.7	7758	31.7	23	8.7	10011	39.6	12514
241.17.50.139	50	25	139	289	19.5	5.6	13.9	5644	26.9	13	13.9	7776	34.7	25.2	9.5	10034	43.4	12543
241.17.50.152	50	25	152	255	21.4	6.2	15.2	5451	29.4	14.2	15.2	7510	38	27.6	10.4	9690	47.5	12112
241.17.50.178	50	25	178	215	25	7.2	17.8	5379	34.5	16.7	17.8	7411	44.5	32.2	12.2	9563	55.6	11954
241.17.50.203	50	25	203	187	28.5	8.2	20.3	5335	39.3	19	20.3	7351	50.7	36.8	13.9	9485	63.4	11856
241.17.50.254	50	25	254	153	36	10.4	25.6	5508	49.6	24	25.6	7589	64	46.4	17.6	9792	80	12240
241.17.50.305	50	25	305	127	42.9	12.4	30.5	5452	59.1	28.6	30.5	7512	76.3	55.3	21	9693	95.4	12116
241.17.63.076	63	38	76	952	10.7	3.1	7.6	10196	14.8	7.1	7.6	14048	19	13.8	5.2	18126	23.8	22658
241.17.63.089	63	38	89	819	12.4	3.6	8.8	10135	17	8.2	8.8	13964	22	16	6	18018	27.5	22522
241.17.63.102	63	38	102	700	14.6	4.2	10.4	10238	20.2	9.8	10.4	14105	26	18.8	7.2	18200	32.5	22750
241.17.63.115	63	38	115	620	16.3	4.7	11.6	10128	22.5	10.9	11.6	13954	29	21.1	8	18005	36.3	22506
241.17.63.127	63	38	127	565	18	5.2	12.8	10170	24.8	12	12.8	14012	32	23.2	8.8	18080	40	22600
241.17.63.152	63	38	152	458	21.4	6.2	15.2	9790	29.4	14.2	15.2	13488	38	27.6	10.4	17404	47.5	21755
241.17.63.178	63	38	178	384	24.8	7.2	17.6	9504	34.1	16.5	17.6	13094	44	31.9	12.1	16896	55	21120
241.17.63.203	63	38	203	337	28.7	8.3	20.4	9675	39.6	19.1	20.4	13330	51	37	14	17200	63.8	21501
241.17.63.254	63	38	254	263	36	10.4	25.6	9468	49.6	24	25.6	13045	64	46.4	17.6	16832	80	21040
241.17.63.305	63	38	305	218	42.8	12.4	30.4	9320	58.9	28.5	30.4	12840	76	55.1	20.9	16568	95	20710