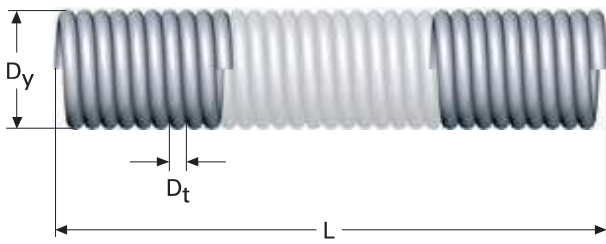


COIL LENGTHS



EXTENSION SPRING COILS

ESL



Spring material, which can be cut into required length.

All dimensions are in mm

D_t = Wire diameter

D_y = Outer diameter

L = Length

F_0 = Initial force in Newtons; the force required before the spring starts to extend

Material: EN 10270-1-SM

Stainless steel EN 10270-3-1.4310

Tolerances: see page 217

1 kp = 9.80665 Newtons, 1 Newton = 0.10197 kp

D_t	D_y	L_0	F_0	F_n	Springsteel	Stainless
					Cat. no	Cat. no
0,20	1,5	300	0,30	2,4	7659	7671
0,20	2,0	300	0,20	1,8	7660	7672
0,20	2,5	300	0,10	1,5	7661	7673
0,20	3,0	300	0,10	1,2	7662	7674
0,25	2,0	300	0,30	3,5	7663	7675
0,25	2,5	300	0,30	2,8	7664	7676
0,25	3,0	300	0,20	2,4	7665	7677
0,25	4,0	300	0,10	1,8	7666	7678
0,30	2,5	300	0,50	4,8	7667	7679
0,30	3,0	300	0,40	4,1	7668	7680
0,30	4,0	300	0,30	3,1	7669	7681
0,30	5,0	300	0,20	2,5	7670	7682
0,40	3,0	300	0,90	9,1	4025	4096
0,40	4,0	300	0,70	7,0	4026	4097
0,40	5,0	300	0,60	5,6	4027	4098
0,50	4,0	300	1,3	13	4028	4099
0,50	5,0	300	1,1	11	4029	4100
0,50	6,0	300	0,90	8,9	4030	4101
0,50	7,0	300	0,80	7,6	4031	4102
0,50	8,0	300	0,70	6,7	4032	4103
0,60	4,0	300	2,3	22	4033	4104
0,60	5,0	300	1,8	18	4034	4105
0,60	6,0	300	1,5	15	4035	4106
0,60	7,0	300	1,4	13	4036	4107
0,60	8,0	300	1,2	11	4037	4108
0,75	6,0	300	3,0	28	4038	4109
0,75	7,0	300	2,6	24	4039	4110
0,75	8,0	300	2,2	21	4040	4111
0,75	9,0	300	2,0	19	4041	4112
0,75	10	300	1,8	17	4042	4113
0,75	12	300	1,5	14	4043	4114
1,00	6,0	300	6,0	61	4044	4115
1,00	7,0	300	5,7	53	4045	4116
1,00	8,0	300	5,0	47	4046	4117
1,00	9,0	300	4,6	42	4047	4118
1,00	10	300	4,0	38	4048	4119
1,00	12	300	3,5	32	4049	4120

D_t	D_y	L_0	F_0	F_n	Springsteel	Stainless
					Cat. no	Cat. no
1,00	14	300	3,0	28	4050	4121
1,20	8,0	300	8,0	78	4051	4122
1,20	9,0	300	7,5	70	4052	4123
1,20	10	300	7,0	63	4053	4124
1,20	12	300	6,0	53	4054	4125
1,20	14	300	5,0	46	4055	4126
1,20	15	300	4,8	43	4056	4127
1,50	10	300	13	117	4057	4128
1,50	12	300	11	99	4058	4129
1,50	14	300	10	86	4059	4130
1,50	15	300	9,0	80	4060	4131
1,50	16	300	8,5	75	4061	4132
1,50	18	300	8,0	67	4062	4133
1,50	20	300	7,0	61	4063	4134
1,80	12	300	18	163	4064	4135
1,80	14	300	16	141	4065	4136
1,80	15	300	15	133	4066	4137
1,80	16	300	14	125	4067	4138
1,80	18	300	13	112	4068	4139
1,80	20	300	12	101	4069	4140
1,80	22	300	10	92	4070	4141
1,80	25	300	9,0	81	4071	4142
2,00	12	300	25	216	4072	4143
2,00	14	300	22	188	4073	4144
2,00	14	1000	22	188	8762	8803
2,00	15	300	20	177	4074	4145
2,00	16	300	19	167	4075	4146
2,00	16	1000	19	167	8763	8804
2,00	18	300	17	149	4076	4147
2,00	18	1000	17	149	8764	8805
2,00	20	300	15	135	4077	4148
2,00	20	1000	15	135	8765	8806
2,00	22	300	14	123	4078	4149
2,00	22	1000	14	123	8766	8807
2,00	25	300	13	109	4079	4150

EXTENSION SPRING COILS

ESL

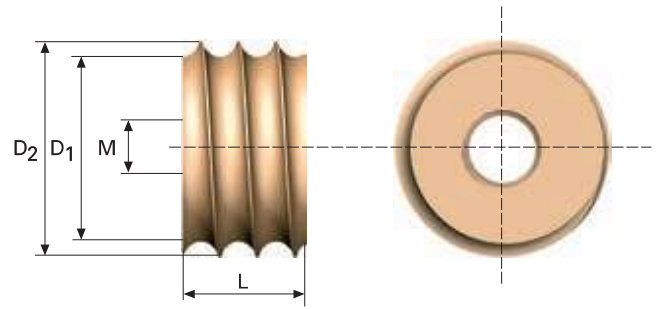
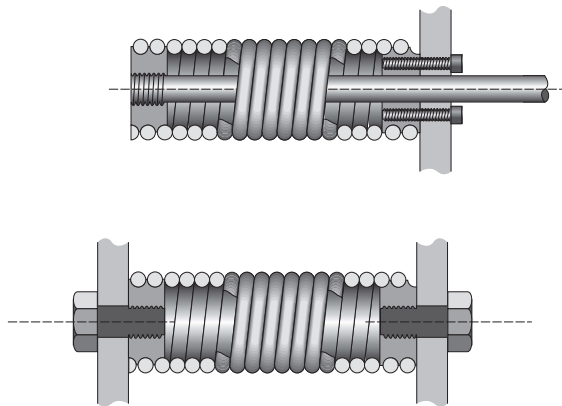


D _t	D _y	L ₀	F ₀	F _n	Springsteel	Stainless
					Cat. no	Cat. no
2,00	25	1000	13	109	8767	8808
2,50	15	300	40	324	4080	4151
2,50	16	300	36	306	4081	4152
2,50	16	1000	36	306	8768	8809
2,50	18	300	32	275	4082	4153
2,50	18	1000	32	275	8769	8810
2,50	20	300	30	250	4083	4154
2,50	20	1000	30	250	8770	8811
2,50	22	300	26	229	4084	4155
2,50	22	1000	26	229	8771	8812
2,50	25	300	23	202	4085	4156
2,50	25	1000	23	202	8772	8813
2,50	28	300	21	182	4086	4157
2,50	30	300	20	170	4087	4158
2,50	30	1000	20	170	8773	8814
3,00	18	300	52	452	4088	4159
3,00	18	1000	52	452	8774	8815
3,00	20	300	45	412	4089	4160
3,00	20	1000	45	412	8775	8816
3,00	22	300	44	378	4090	4161
3,00	22	1000	44	378	8776	8817
3,00	25	300	40	335	4091	4162
3,00	25	1000	40	335	8777	8818
3,00	28	300	35	301	4092	4163
3,00	30	300	33	282	4093	4164
3,00	30	1000	33	282	8778	8819
3,00	32	300	31	266	4094	4165
3,00	35	300	29	244	4095	4166
3,00	35	1000	29	244	8779	8820
3,50	20	1000	70	618	8780	8821
3,50	22	1000	65	568	8781	8822
3,50	25	1000	60	506	8782	8823
3,50	30	1000	50	428	8783	8824
3,50	35	1000	42	370	8784	8825

D _t	D _y	L ₀	F ₀	F _n	Springsteel	Stainless
					Cat. no	Cat. no
3,50	40	1000	35	325	8785	8826
4,00	22	1000	100	820	8786	8827
4,00	25	1000	80	733	8787	8828
4,00	30	1000	70	622	8788	8829
4,00	35	1000	60	539	8789	8830
4,00	40	1000	50	475	8790	8831
5,00	25	1000	160	1324	8791	8832
5,00	30	1000	130	1133	8792	8833
5,00	35	1000	110	987	8793	8834
5,00	40	1000	100	873	8794	8835
5,00	45	1000	85	782	8795	8836
5,00	50	1000	70	708	8796	8837
6,00	30	1000	220	1826	8797	8838
6,00	35	1000	180	1602	8798	8839
6,00	40	1000	160	1423	8799	8840
6,00	45	1000	145	1278	8800	8841
6,00	50	1000	130	1159	8801	8842
6,00	60	1000	90	976	8802	8843

THREAD FITTING

TF



Thread fitting for assembly in tension spring coils, see previous pages. This fitting is safer than conventional loops, which is why higher loads are permitted on the spring. The coil can be cut into the required length, and the fitting can be mounted without any special tools.

The fitting can also be used for compression springs, where the end coils are not ground. Special manufactured springs with two tightly wound coils at each end must then be ordered.

All dimensions are in mm

- D_t = Wire diameter
- D_y = Outer diameter
- D_1 = Diameter, bottom of thread
- D_2 = Diameter, thread
- L = Length
- A = Thread

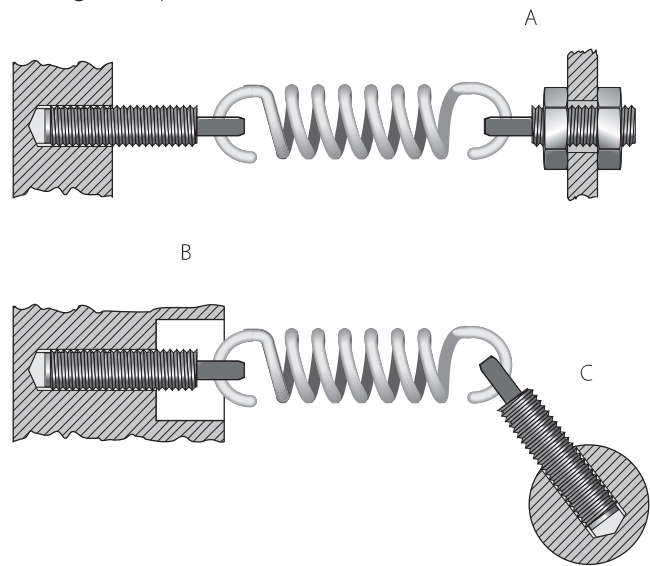
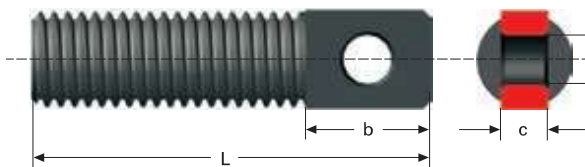
Material: Free-cutting steel

Finish: Galvanised and yellow chromated

D_t	D_y	D_1	D_2	L	A	Cat.no
2,5	16	11	13	8	M6	8645
2,5	18	13	15	8	M6	8646
2,5	20	15	17	8	M6	8647
2,5	22	17	19	8	M6	8648
3	18	12	14,5	10	M6	8649
3	20	14	16,5	10	M6	8650
3	22	16	18,5	10	M6	8651
3	25	19	21,5	10	M6	8652
3,5	20	13	16	12	M8	8653
3,5	22	15	18	12	M8	8654
3,5	25	18	21	12	M8	8655
3,5	30	23	26	12	M8	8656
4	25	17	20	14	M8	8657
4	30	22	25	14	M8	8658
4	35	27	30	14	M8	8659
4	40	32	35	14	M8	8660
5	30	20	24	18	M10	8661
5	35	25	29	18	M10	8662
5	40	30	34	18	M10	8663
5	45	35	39	18	M10	8664
6	35	23	28	20	M12	8665
6	40	28	33	20	M12	8666
6	45	33	38	20	M12	8667
6	50	38	43	20	M12	8668



Fitting example



Spring sockets may be used for the mounting of an extension spring. You can easily adjust the spring force by screwing the socket in or out. Spring sockets are available as standard in seven dimensions; one length of each.

If the spring socket is mounted as shown in fig. A, the spring force can easily be adjusted without disengaging the spring. Where space is limited, the spring socket can be used as shown in fig. B. Fig. C shows a spring socket used as a lever.

All dimensions are in mm

- L = Total length
- a = Hole diameter
- b = Mounting loop length
- c = Mounting loop thickness
- D_t = For maximum wire diameter

Material: 1.1730

Finish: Galvanised and black chromated

Thread	L	a	b	c	D_t	Cat. no
M3	12	1,2	3,2	1,7	1,0	4658
M4	18	1,6	4,5	2	1,5	4659
M5	20	2,2	5,5	2,5	2,0	8958
M6	25	2,7	6,7	3	2,5	4660
M8	35	3,7	9	4	3,5	4661
M10	45	5,2	11	5	5	4662
M14	55	6,4	16	7	6	4663