



NOCKERS
 ENGINEERING PRODUCTS

UNALLOYED CARBON STEEL SPRING WIRE TO EN 10270-1: 2001

Tensile Strength in the Cold Drawn Condition

Wire Diameter <i>d</i>		Mass Kg/1000 m	Tensile Strength for Wire Grades (MPa)	
Nominal Size mm	Permissible Deviations mm		SM DM	SH DH
0,30	± 0,008	0,555	2370 to 2650	2660 to 2940
0,32		0,631	2350 to 2630	2640 to 2920
0,34		0,713	2330 to 2600	2610 to 2890
0,36		0,799	2310 to 2580	2590 to 2870
0,38		0,890	2290 to 2560	2570 to 2850
0,40		0,985	2270 to 2550	2560 to 2830
0,43		1,14	2250 to 2520	2530 to 2800
0,45		1,25	2240 to 2500	2510 to 2780
0,48		1,42	2220 to 2480	2490 to 2760
0,50		1,54	2200 to 2470	2480 to 2740
0,53		1,73	2180 to 2450	2460 to 2720
0,56		1,93	2170 to 2430	2440 to 2700
0,60		2,22	2140 to 2400	2410 to 2670
0,63		2,45	2130 to 2380	2390 to 2650
0,65	2,60	2120 to 2370	2380 to 2640	
0,70	± 0,010	3,02	2090 to 2350	2360 to 2610
0,75		3,47	2070 to 2320	2330 to 2580
0,80		3,95	2050 to 2300	2310 to 2560
0,85	± 0,015	4,45	2030 to 2280	2290 to 2530
0,90		4,99	2010 to 2260	2270 to 2510
0,95		5,59	2000 to 2240	2250 to 2490
1,00		6,17	1980 to 2220	2230 to 2470
1,05	± 0,020	6,80	1960 to 2200	2210 to 2450
1,10		7,46	1950 to 2190	2200 to 2430
1,20		8,88	1920 to 2160	2170 to 2400
1,25		9,63	1910 to 2140	2150 to 2380
1,30		10,42	1900 to 2130	2140 to 2370
1,40		12,08	1870 to 2100	2110 to 2340
1,50		13,90	1850 to 2080	2090 to 2310
1,60		15,80	1830 to 2050	2060 to 2290
1,70		17,80	1810 to 2030	2040 to 2260
1,80		20,00	1790 to 2010	2020 to 2240
1,90	± 0,025	22,30	1770 to 1990	2000 to 2220
2,00		24,70	1760 to 1970	1980 to 2200
2,10		27,20	1740 to 1960	1970 to 2180
2,25		31,20	1720 to 1930	1940 to 2150
2,40		35,50	1700 to 1910	1920 to 2130
2,50		38,50	1690 to 1890	1900 to 2110
2,60		41,70	1670 to 1880	1890 to 2100

Wire Diameter <i>d</i>		Mass Kg/1000 m	Tensile Strength for Wire Grades (MPa)	
Nominal Size mm	Permissible Deviations mm		SM DM	SH DH
2,80	± 0,030	48,30	1650 to 1850	1860 to 2070
3,00		55,50	1630 to 1830	1840 to 2040
3,20		63,10	1610 to 1810	1820 to 2020
3,40		71,30	1590 to 1780	1790 to 1990
3,60		79,90	1570 to 1760	1770 to 1970
3,80		89,00	1550 to 1740	1750 to 1950
4,00		98,60	1530 to 1730	1740 to 1930
4,25	± 0,035	111,00	1510 to 1700	1710 to 1900
4,50		125,00	1500 to 1680	1690 to 1880
4,75		139,00	1480 to 1670	1680 to 1860
5,00		154,00	1460 to 1650	1660 to 1840
5,30		173,00	1440 to 1630	1640 to 1820
5,60	± 0,040	193,00	1430 to 1610	1620 to 1800
6,00		222,00	1400 to 1580	1590 to 1770
6,30		245,00	1390 to 1560	1570 to 1750
6,50		260,00	1380 to 1550	1560 to 1740
7,00		302,00	1350 to 1530	1540 to 1710
7,50	± 0,045	347,00	1330 to 1500	1510 to 1680
8,00		395,00	1310 to 1480	1490 to 1660
8,50		445,00	1290 to 1460	1470 to 1630
9,00		499,00	1270 to 1440	1450 to 1610
9,50	± 0,050	559,00	1260 to 1420	1430 to 1590
10,00		617,00	1240 to 1400	1410 to 1570
10,50	± 0,070	680,00	1220 to 1380	1390 to 1550
11,00		746,00	1210 to 1370	1380 to 1530
12,00	± 0,080	888,00	1180 to 1340	1350 to 1500
12,50		963,00	1170 to 1320	1330 to 1480
13,00		1042,00	1160 to 1310	1320 to 1470
14,00		1208,00	1130 to 1280	1290 to 1440
15,00		1387,00	1160 to 1260	1270 to 1410
16,00	± 0,090	1578,00	1090 to 1230	1240 to 1390
17,00		1782,00	1070 to 1210	1220 to 1360
18,00		1998,00	1050 to 1190	1200 to 1340
19,00	± 0,100	2225,00	1030 to 1170	1180 to 1320
20,00		2466,00	1020 to 1150	1160 to 1300