

The Institute of Spring Technology
Henry Street
Sheffield
S3 7EQ

Tel: 0114 276 0771
Fax: 0114 252 7997
E-mail: ist@ist.org.uk

Date: 23.4.2018 ã.
Time: 11:29:52
Initials:

Spring Type: Round Wire Compression

Designed To: EN 13906-1: 2002
Tolerance Standard: EN 15800: 2010

Material

EN 10270-1 Drawn
Youngs Mod (E): 206000 N/mm²
Rigidity Mod (G): 81500 N/mm²
Density: ,00000785 Kg/mm³
Unprestress: 0-45 %
Prestress: 45-56 %

End Type: Closed and Ground
Dead Coils: 2,00
Tip Thickness: 100,00 %
End Fixation: Both Ends Fixed and Unguided

Design Parameters

Wire Diameter: 16,00 mm
Outside Diameter: 165,00 mm
Total Coils: 12,00
Spring Rate: 20,18 N/mm (Calculated)
Free Length: 380,00 mm

Calculated Data

Solid Length: 208,00 mm
Min. Length (static): 244,81 mm
Min. Length (dynamic): 263,22 mm
Solid Load: 3471,5 N
Solid Stress: 321,58 N/mm²
Stress Factor: 1,15
Active Coils: 10,00
Spring Index: 9,31
Helix Angle: 4,06 Deg
Buckling Possible: 250,19 mm
Buckling Definite: Not Applicable
Spring Pitch: 33,20 mm
Inside Diameter: 133,00 mm
Mean Coil Dia.: 149,00 mm
Wire Length: 5629,5 mm
Weight / 100: 888,52 Kg
Natural Freq: 1568,0 RPM

Stress Data

	Lower Tensile	Solid	% Tensile
SL	NO DATA		
SM	1090	30 U	
DM	1090	30 U	
SH	1240	26 U	
DH	1240	26 U	
Specified			

Operating Data

NO DATA

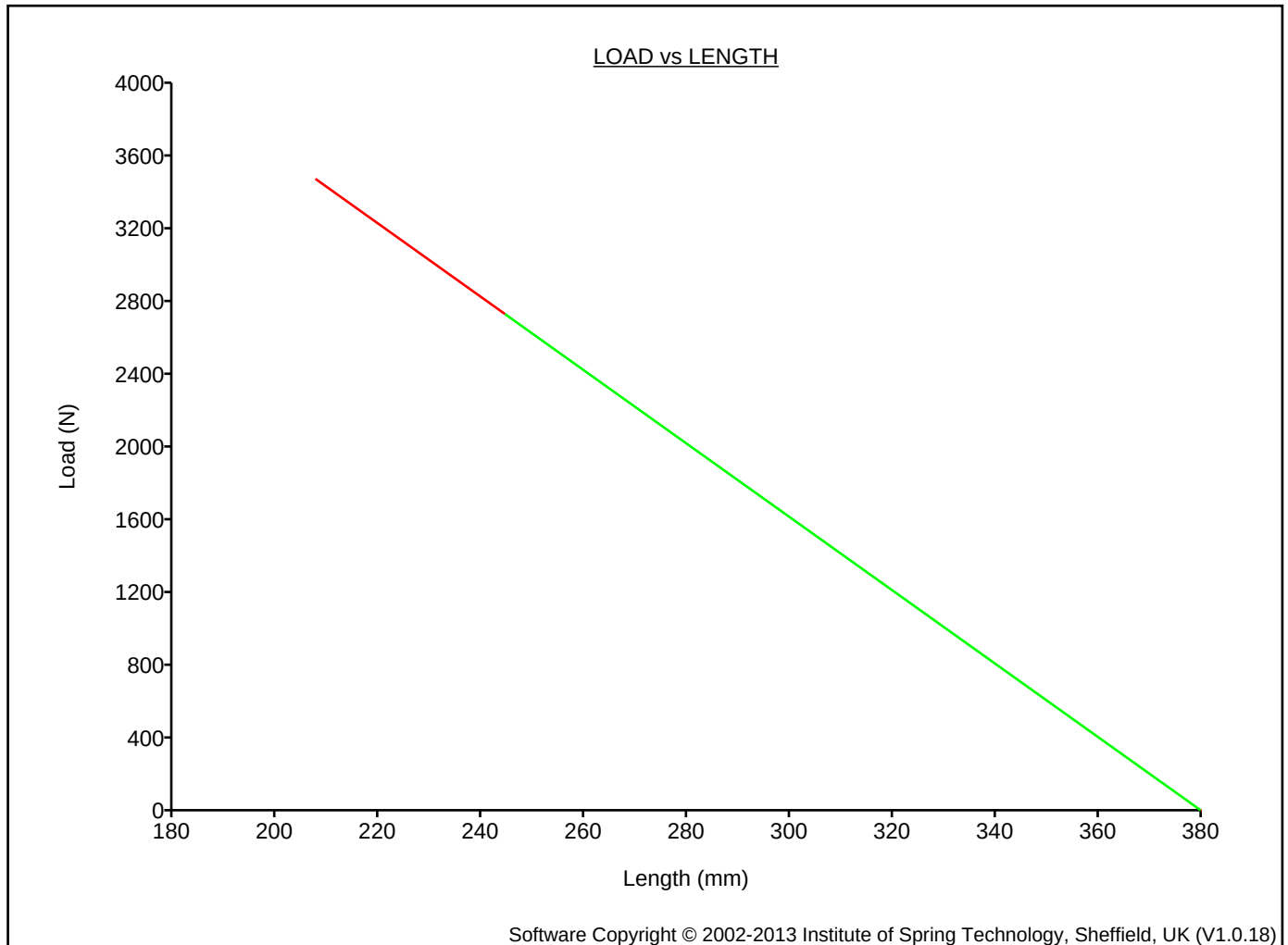
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Load / Length Graph

Material: EN 10270-1 Drawn
Grade: SL
Lower Tensile (N/mm²): 0



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Spring Drawing

Material:

Right hand helix
EN 10270-1 Drawn

d	Wire Diameter:	16,00	mm
D_e	Outside Diameter:	165,00	mm
n_t	Total Coils:	12,00	
R_s	Spring Rate:	20,18	N/mm
L_0	Free Length:	380,00	mm
L_c	Solid Length	208,00	mm
F_{cth}	Solid Load	3471,5	N

