



Advanex Americas, Inc.

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 Cypress
 California
 90630
 USA
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Fax:
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Input Data		
Spring Details		
Spring Type	Round Wire Compression	
Design Standard	EN 13906-1: 2002	
Tolerance Standard	EN 15800:2008	
Material Information		
Material - Inconel 718		
Young's Modulus	199948	MPa
Rigidity Modulus	77221.3	MPa
Density	0.00008221	kg/mm ³
Unprestressed Range	0-45	%
Prestressed Range	45-56	%
Design Information		
End Type	Closed & Ground	
Dead Coils	2.00	
Tip Thickness	50.00	%
End Fixation		
Wire Diameter	17.00	mm
Outside Diameter	61.74	mm
Total Coils	7.04	
Spring Rate	1785.7	N/mm
Free Length	140.00	mm

Calculated Data		
Solid Length	119.68	mm
Solid Length (Max)	119.68	mm
Solid Load	36285	N
Solid Stress	841.51	MPa
OD Expansion at solid	0.220	mm
Stress Factor	1.66	
Active Coils	5.04	
Spring Index	2.63	
Helix Angle	8.51	Deg
Buckling Possible	140.00	mm
Buckling Definite	140.00	mm
Spring Pitch	21.03	mm
Inside Diameter	27.74	mm
Mean Coil Dia.	44.74	mm
Outside Diameter	61.74	mm
Wire Length	999.5	mm
Weight	1.87	kg
Natural Frequency	34867	RPM

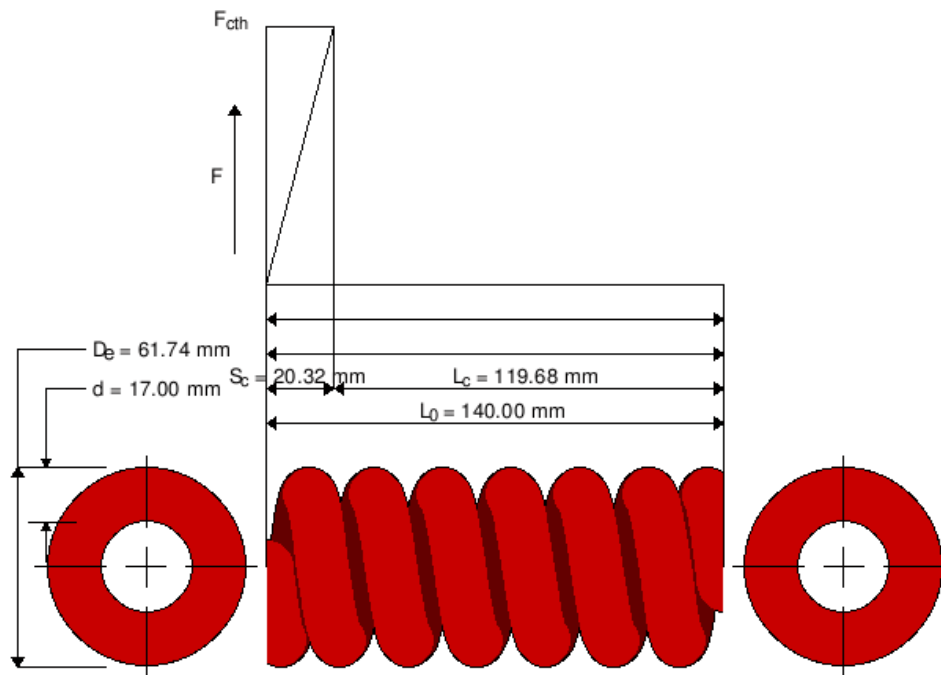
Operating Data		
	Operating Positions	
	1	2
Length (mm)	136.00	134.00
Load (N)	7142.8	10714
Deflection (mm)	4.00	6.00
Stress (MPa)	166	248
Stress % Solid	20	30
O.D. Expansion (mm)	0.0433	0.0650



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Spring Tolerances					
EN 15800:2008					
	Value		Grade 1	Grade 2	Grade 3
Free Length	140.00	±	0.968	1.54	2.46
Outside Diameter	61.74	±			
Spring Rate	1785.7	±			
Squareness			4.41	7.00	11.20
Parallelism			0.926	1.85	3.70
Working Load 1	7142.8	±	1795.5	2850.0	4559.9
Working Load 2	10714	±	1829.2	2903.5	4645.6

Spring Drawing





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Load / Length Drawing

