



Advanex Americas, Inc.

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 Cypress
 California
 90630
 USA
 714.995.4519
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 insidesales@advanexusa.com

Fax:
 Email:

Input Data		
Spring Details		
Spring Type	Round Wire Compression	
Design Standard	EN 13906-1: 2002	
Tolerance Standard	EN 15800:2008	
Material Information		
Material - ASTM A228 (Music Wire)		
Young's Modulus	206000	MPa
Rigidity Modulus	81500	MPa
Density	0.00000785	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	11.00	mm
Outside Diameter	63.98	mm
Total Coils	24.00	
Spring Rate	45.59	N/mm
Free Length	431.80	mm

Calculated Data		
Solid Length	264.00	mm
Solid Length (Max)	265.68	mm
Solid Load	7650.2	N
Solid Stress	775.44	MPa
OD Expansion at solid	0.300	mm
Stress Factor	1.31	
Active Coils	22.00	
Spring Index	4.82	
Helix Angle	6.39	Deg
Buckling Possible	431.80	mm
Buckling Definite	431.80	mm
Spring Pitch	18.63	mm
Inside Diameter	41.98	mm
Mean Coil Dia.	52.98	mm
Outside Diameter	63.98	mm
Wire Length	4018.2	mm
Weight	3.00	kg
Natural Frequency	3875.7	RPM

Operating Data		
	Operating Positions	
	1	2
Length (mm)		
Load (N)		
Deflection (mm)		
Stress (MPa)	0	0
Stress % Solid	0	0
O.D. Expansion (mm)		



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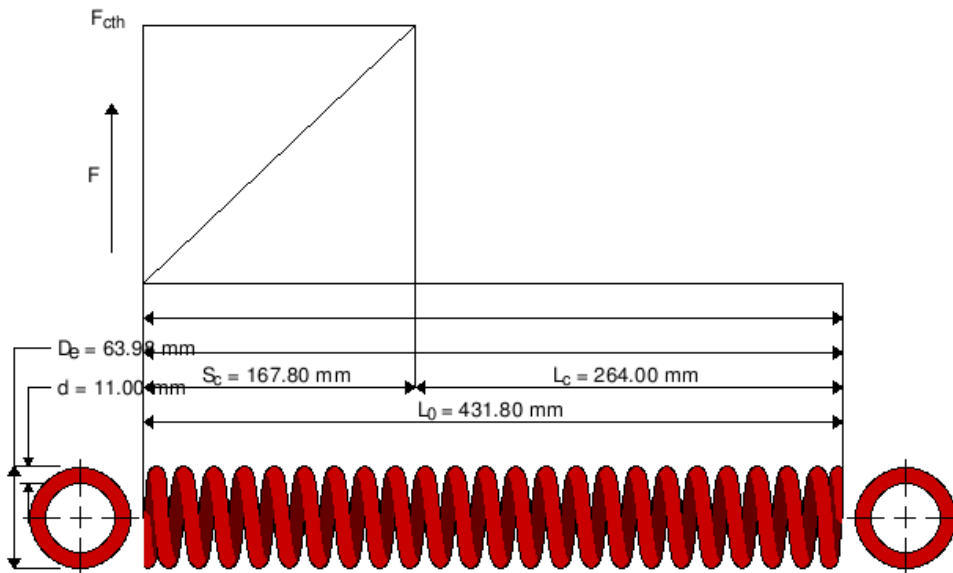
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Spring Tolerances					
EN 15800:2008					
	Value		Grade 1	Grade 2	Grade 3
Free Length	431.80	±	3.92	6.23	9.96
Outside Diameter	63.98	±	0.400	0.800	1.50
Spring Rate	45.59	±			
Squareness			13.60	21.59	34.54
Parallelism			0.960	1.92	3.84
Working Load 1		±	178.83	283.86	454.17
Working Load 2		±	178.83	283.86	454.17

Spring Drawing





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Load / Length Drawing

