## **OUTPUT**:

Minimum force: 184 N Maximum force: 884 N Wire diameter: 6 mm Spring index: 5.57 Coil diameter: 33.42 mm

Clash allowance: 2.25 mm Spring rate: 31111.1111 N/m Number of Active Coils: 11.0207 Total number of Coils: 13.0207 Solid length: 84.1239 mm Free length: 114.7882 mm

The force that closes the spring: 954 N

Ks: 1.0898 Kw: 1.2745

Slenderness ratio: 3.4347 Deflection ratio: 0.24754

Safety factor against buckling: 3.3387-1.2102i

Mass of Active Coils: 0.25191 kg Natural frequency: 32.723 1/s Safety against spring surge: 9.132

Ultimate tensile strength: 1264.9608 MPa Ultimate shear strength: 569.2324 MPa

Yield strength: 948.7206 MPa Shear yield Strength: 569.2324 MPa Stress in solid state: 409.6139 MPa Safety factor against yielding: 1.3897 Alternating stress: 175.7559 MPa

Mean stress: 268.1532 MPa Torsional stress: 474.3603 MPa

Safety factor against fatigue failure: 1.2015

Material Selection: A227