

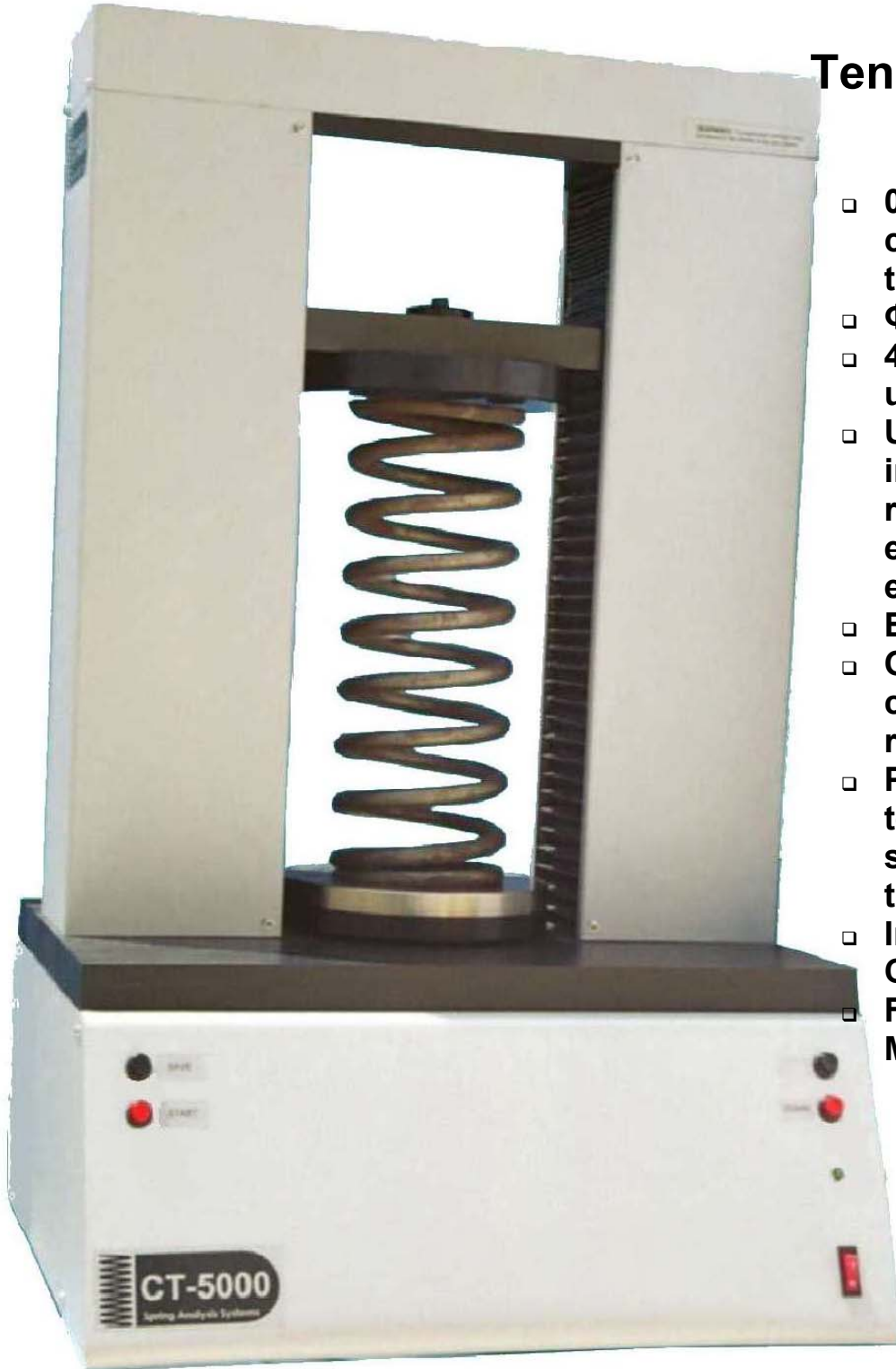


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# CT-5000

## Tension and Compression spring analyzer



- ❑ 0.2-5000N Servo driven, PC controlled programmable spring tester
- ❑  $\Phi$ 200 mm Testing platen
- ❑ 400mm Standard Stroke, Strokes up to 1000mm available
- ❑ Unique spring design module integrated with the system test results to enhance coiler setup efficiency and facilitate spring re-engineering, (optional).
- ❑ Excellent R+R performance
- ❑ Optional SPC control charts, capabilities tests and detailed report creation software
- ❑ Programmable for automated testing with spring test setups stored in files for quick recall and test
- ❑ Includes automatic Self Calibration Routines
- ❑ Fully Microsoft Windows, 2000, ME and XP compatible.



# Specifications

	Compression	Tension
<b>Load</b>	<ul style="list-style-type: none"> <li>5000N (1120lbf), standard load range, resolution – 0.2N (0.044lbf)</li> <li>Optional 1000N (224lbf) load range, resolution – 0.04N (0.009lbf)</li> <li>Continuous digital display or Force/Load height graphical analysis tools and display</li> <li>Accuracy: ±0.8N (to 5000N) and ±0.2N (to 1000N)</li> <li>Safe overload to 150% of FS (compression and tension overload protection at 100% of FS load)</li> </ul>	
<b>Stroke</b>	400mm (16") Standard	400mm (16") Standard
<b>Fixtures</b>	Up to 1000mm available	Up to 1000 mm available
<b>Displacement</b>	<ul style="list-style-type: none"> <li>Standard flat Ø200 mm top/bottom compression testing surfaces</li> <li>Optional fixtures for buckling springs</li> </ul>	<ul style="list-style-type: none"> <li>Standard 10mm (0.4") pin fixtures for open or closed loop tension springs</li> <li>Optional additional pins</li> </ul>
<b>Free Length</b>	<ul style="list-style-type: none"> <li>Resolution: 0.01mm (0.0004") (Standard Stroke)</li> <li>Accuracy: ±0.02mm (±0.0008") (Standard Stroke).</li> <li>Absolute display of load height above a user defined fixed reference.</li> </ul>	
<b>OD</b>	<ul style="list-style-type: none"> <li>400mm (16") Maximum -Standard</li> <li>Automatically determined</li> </ul>	<ul style="list-style-type: none"> <li>Within 400mm (16")-Standard</li> <li>Automatically determined</li> </ul>
<b>Spring rate</b>	200mm (7.9") Maximum	200mm (7.9") Maximum
<b>Initial tension</b>	<ul style="list-style-type: none"> <li>Automatic or manual determination of spring rate (linear analysis), option for characterization of non-linear rates (e.g. conical springs)</li> </ul>	<ul style="list-style-type: none"> <li>Automatic detection of tension spring initial tension.</li> </ul>
<b>Display</b>	NA	
<b>Computer</b>	<ul style="list-style-type: none"> <li>17" Color monitor.</li> </ul>	
<b>Languages</b>	<ul style="list-style-type: none"> <li>Pentium processor</li> <li>Serial connection to PC for data transfer</li> <li>Fully Microsoft Windows 2000, ME and XP compatible</li> <li>English, German, French and Spanish</li> </ul>	
<b>Software</b>	<ul style="list-style-type: none"> <li>Programmable for automated testing, Includes frelength, initial tension and spring rate results. Solid Height detection included.</li> <li>Full reporting and printing capability available.</li> <li>On-line and off-line SPC control charts and Cpk capability testing available.</li> <li>Design and reverse engineering algorithms</li> <li>Smart self calibration routines</li> </ul>	
<b>Features</b>		
<b>Units</b>	N, kgf, gf, ozf, lbf – mm, inches	
<b>Test speeds</b>	1.5mm/s – 15mm/s (3.5"/min – 35.5"/min)	
<b>Power</b>	<ul style="list-style-type: none"> <li>110V~220V AC 10A (Maximum)</li> </ul>	
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>485mmx540mmx870mm (19."x 21.3" x 34.3")- LxBxH -Standard</li> <li>Weight 65kg (143lbs) Standard</li> </ul>	

The software interface includes several key components:

- Graphs:** Real-time force-displacement and force-load height graphs.
- Design Analysis:** A dialog box for configuring spring parameters such as material (Hard Drawn MB - 0.8mm), wire type (Round), end type (PL-Open or Plain), and coil diameter (0.025).
- SPC Control:** A table for monitoring variables (F1, F2, F3, Fit) and calculating process capability (Cpk).

Full function spring design, analysis and SPC in real-time