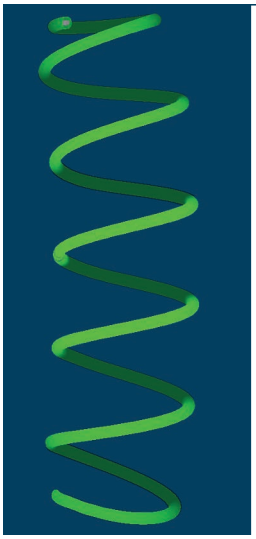
F881

3D Geometry Measurement of Suspension Springs



imess
Optische Mess- und Prüfanlagen



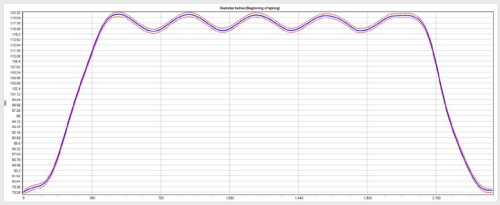
The best double-laser measurement system.
imess F881 checks the 3D geometry of unground suspension springs.

- Fast measurement of complex geometries such as C-shape
- Creating a 3D spring model
- Comparing the measurement results to a reference spring
- Depiction of tolerance exceedances
- Transferring measurement results to the coiler

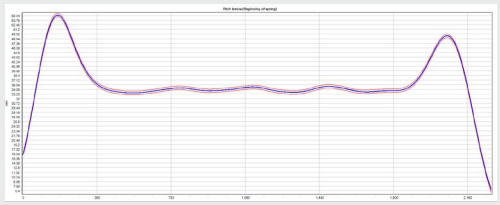
high accuracy: ± 0.1 mm

Watch our product video:
www.imess.com/vertrieb/F880.mp4

Characteristics	Pitch Gap	Diameter	Radius Spring Eye	further on demand



Depiction of C-Shape Spring Diameter

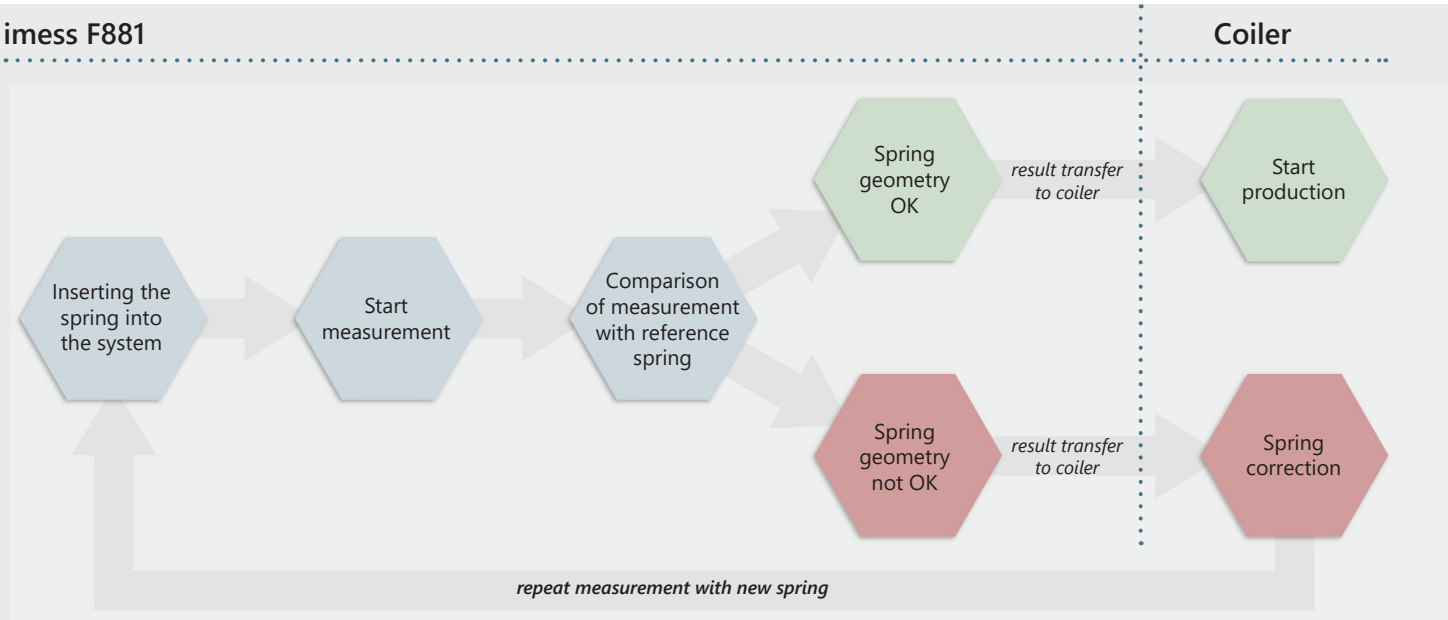


Depiction of C-Shape Spring Pitch

Our service

- easy to operate software
  - numerical and graphical evaluation
  - 3D model of the spring with coloured evaluation scale
  - easy setup of new springs
- detailed evaluation
  - the table lists the measurement value of each test characteristic in individually adjustable steps (typically each 0,05 coils)
  - trend graphs for up to 20 measurements
  - measurement values can be exported for further analysis
- reduction of setup time
  - direct transfer of the measurement results to the coiler
  - precise correction of pre-production springs, using imess measurement results
- measurement of complex geometries
  - C-Shape
  - left and right coiled springs

Interface to coiler Significant reduction of setup time



Process of Coiler Setup



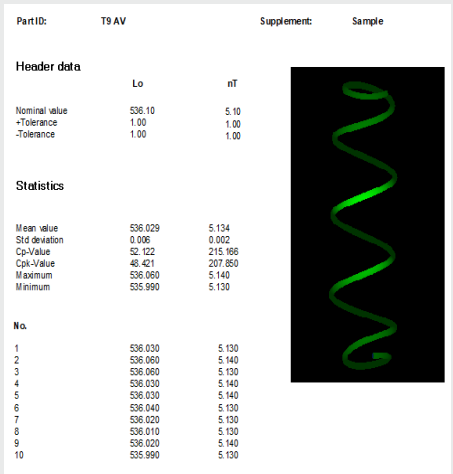


Technical Data	**imess F881**
Spring Diameter De	up to 300 mm
Spring Length L_0	up to 600 mm
Wire Diameter	5 - 30 mm
Measurement Speed	< 2 minutes for 6 coils
Dimensions: w x d x h	1,200 x 800 x 2,000 mm
Weight	ca. 350 kg

Construction Characteristics

- two laser sensors are used to detect hidden spring ends
- smooth movement of the z-axis
- continuous turning of the spring
- touchscreen monitor to operate the software easy and fast
- cone holders centralise the spring
- Makrolon door increases the operator safety

recently added features & more to come



Part ID: T9 AV Supplement: Sample

Header data

	Lo	nT
Nominal value	536.10	5.10
+Tolerance	1.00	1.00
-Tolerance	1.00	1.00

Statistics

Mean value	536.029	5.134
Std deviation	0.006	0.002
Cp-Value	52.122	215.166
Cpk-Value	48.421	207.850
Maximum	536.060	5.140
Minimum	535.990	5.130

No.

1	536.030	5.130
2	536.060	5.140
3	536.060	5.130
4	536.030	5.140
5	536.030	5.140
6	536.040	5.130
7	536.020	5.130
8	536.010	5.130
9	536.020	5.140
10	535.990	5.130

Excerpt of a C-Shape Spring Measurement Protocol

Measurement protocol
Detailed PDF-Report including processing graphic

Teach in of cone position
Time saving due to one time reference run

Extrapolation
Calculation and evaluation of flake area

More to come
Measurement of unground springs



F881-1E-0820

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