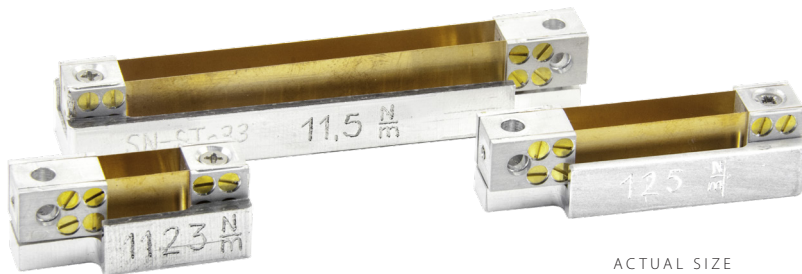


STFMA SpringTable & Force Measurement Analysis

The STFMA package is an ingenious and low-tech way of measuring forces in-situ in an SEM. The SpringTable relies on the microscope's high resolution power to deliver force measurements quickly and easily. Data is generated by deflecting

The SpringTable's design and construction confine its motion to one dimension thereby avoiding any ambiguity in the results.

Using the Force Measurement Analysis software, the acquired imagery is batch processed, delivering results with just a few mouse-clicks, seconds after performing the experiment.



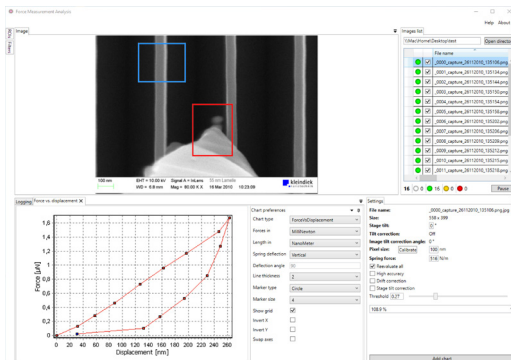
the table – which has a well defined and known spring constant – by a given distance while recording images with the SEM. Each amount of deflection corresponds to a force. The Force Measurement Analysis software processes the image files in real time, reading out the header info and detecting the deflection (both of the substrate and the sample), and convolutes this data to yield a force distance curve.

Applications

- Nanoindentation
- Nanoforging
- Tensile testing
- MEMS analysis

Technical specifications

- Maximum force: 50 mN
- Minimum force: 10 nN
- The SpringTable's dimensions depend on the desired force constant.
- The SpringTable's resolution depends on the SEM's resolution (up to 1:1000).
- Height 13 mm
- Width 14 mm
- Length:
 - 10 N/m 88 mm
 - 100 N/m 52 mm
 - 1000 N/m 35 mm



Further information

- Contact us at info@kleindiek.com
- Find your local agent at www.kleindiek.com