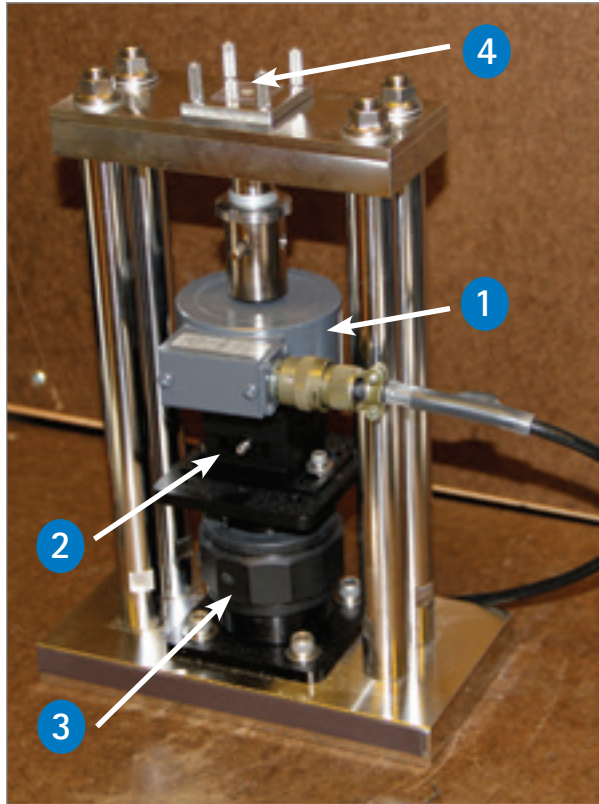


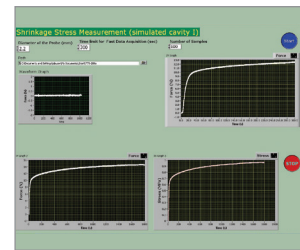
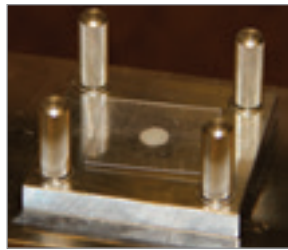
*NEW from BISCO's Research Equipment Group*

## CaviStress



- 1. Load cell
- 2. X-Y linear stage
- 3. Vertical jack
- 4. Cylindrical cavity

CaviStress, developed and manufactured by BISCO, Inc., is an instrument used to measure the contraction force caused by polymerization of dental resin composites. This device measures the contraction force at the bottom of a simulated class I preparation in both light-curing mode and self-curing mode using a stainless steel rod connected to the load cell. Contraction forces with varying C-factors can also be obtained by adjusting cavity depth using a small vertical lab jack. CaviStress is not equipped with a feedback displacement setup. System compliance of the CaviStress machine together with the load cell is 3.35  $\mu\text{m}/\text{N}$ . The data acquisition software utilizing LabVIEW\* graphical programming language displays polymerization force and stress over time. Users can investigate patterns of the initial curing process with rapidly increasing stress as well as final shrinkage stress level of composites.



Cylindrical cavity simulating class I preparation before resin sample loading (left), covered with mylar film after resin sample loading (middle), and under light curing (right).

Typical shrinkage force and stress output using LabVIEW.



**FOR MORE INFORMATION:**

Contact Sarah Peterson to learn more at [speterson@bisco.com](mailto:speterson@bisco.com)

1-800-247-3368 • 1-847-534-6000 • [www.bisco.com](http://www.bisco.com)

\* National Instruments, Austin, TX