



Memorandum

From: Fred Weber

Date: 9/15/2015

Re: Gerber Butyrometers Breaking – Troubleshooting Checklist

- 1) Be certain that the butyrometers are inserted **STOPPER DOWN**.
- 2) Be certain that the centrifuge is **BALANCED** with butyrometers of similar weight. Do not cross-balance a butyrometer filled with sample and acid mixture with an empty butyrometer or a butyrometer filled with just water.
- 3) Make certain the centrifuge is otherwise operating vibration free and is on a level bench. Be certain the rotor spindle is at a true 90-degree angle and has not been bent or distorted in any way.
- 4) Be certain to clean out any broken glass debris from the bottom of the centrifuge tubes. This will cause the butyrometers to sit at an off angle and put tremendous pressure on the glass.
- 5) Be certain that the butyrometers are fully inserted to the bottom of the centrifuge tubes. Otherwise they can "slap" down when the centrifuge reaches full speed, causing breakage.