

## TEST PROCEDURE FOR THE GTC

Prior to testing and before the system is turned on, it is important to complete the following:

- ensure the cylinders to be tested are free from defects and have been properly inspected according to CGA pamphlet C6
- completely fill the cylinders with clean water and allow cylinders to achieve room temperature
- gauge calibration sheet, calibrated cylinder must be on hand to verify calibration each day of testing. \*GTC gauge needs to be calibrated every six months unless a master gauge is used.

### SYSTEM START UP PROCEDURE (GTC 10,000 SYSTEM)

Read all instructions before attempting to operate the GTC 10K test system. Before testing, turn on scale and allow to warm up for 30 minutes for maximum performance.

- 1) Turn power to scale on and allow scale to warm up.  
Before turning on air and water, ensure all valves on console are off or closed.
- 2) Turn on air and water to system. Verify that control air pressure is at 90 PSI on small regulator where blue hose connects to the back of the system. Check oil level in lubricator. Place calibrated cylinder in test jacket ensuring cylinder and jacket are completely filled with water. Connect hoses, (blue hose first). Open expansion valve on console.
- 3) Bleed air from expansion lines by filling bowl using bowl level adjustment valve. Remove blue hose from test head and allow water to drain back to jacket then reconnect blue (head seal) hose before water in bowl goes below probe end in bowl (not allowing air to be sucked into expansion line).
- 4) Adjust water level to just above probe (approx. ¼ inch). Make sure scale is set on grams and zero the scale. Ensure that before daily calibration, the scale will hold on 0.0 to make sure the system is stable. Verify the gauge needle is on the zero line.
- 5) To verify the bowl reading, place test weights on the bowl platform (with the reading starting at 0.0). The reading for the two 50 gram weights

should be 100 grams or (99.7 – 100.3). If the reading is outside this tolerance, you must recalibrate the scale using the calibration procedure in the scale manual.

- 6) You are now ready to pressurize the system and check calibration. Proceed as follows-  
Be sure expansion valve is in the open position with calibration cylinder in jacket.  
Close bleed valve. Press zero on scale. Open water to pump valve. You will see scale and pressure rise as the system reads your local water pressure (this is normal). Open pump speed adjustment valve slowly, (at first) to pressurize system. Do not pressurize system any higher than highest pressure on calibration cylinder. Close pump speed adjustment valve when pressure is reached, (3,000, 4,000, 5,000 etc.). Refer to pressure calibration sheet to stop system at proper indicated value on sheet for given pressure. With pump speed adjustment valve closed, close water to pump valve and start timer (30 second count down). System should hold pressure and bowl should be stable. Record readings as system counts down.

- 7) Bleed off pressure using bleed valve and verify system, (bowl) returns to 0.0. If system does not return to zero, you must (stretch) once or twice to get calibrated cylinder to zero out.

Calibrated cylinder must show NO permanent expansion.

Follow procedure in step 6 as necessary to run calibration cylinder at various pressures.

\*NOTE- It is the responsibility of the operator of the equipment to run the daily calibration of the system using the calibration cylinder within the DOT requirements. This means the bowl and pressure readings need to be within the 1% tolerance and the calibration cylinder has been run within 500 psi of the cylinder test pressures of that day.

- 8) Prior to cylinder testing, the expansion valve needs to be closed, the hoses removed and the calibrated cylinder removed and replaced with the first cylinder of the day to be tested. When that cylinder has been placed in the jacket, fill the jacket, then connect the hoses, then be sure to turn expansion valve before proceeding. Follow step 6 to be sure valves are opened and closed in their proper order. Any questions, call Galiso Inc.

## CYLINDER TESTING

- 8) As cylinders are tested and results recorded to the test sheet, it is the responsibility of the operator to perform the proper calculations and record results. As each cylinder is finished and the results show the cylinder passes, the cylinder may then be removed from the jacket and placed in the inverter, (manual or automatic) to be drained and dried.
- 9) To shutdown the system, turn off (or close) the water and then the air to the system.  
The scale may now be turned off. Make sure all valves are off or closed.

NOTES- refer to the operation manual (provided) for any detailed information or call customer service at (800)854-3789 for additional information and assistance.