60 Second Drift Test

Objective: Quantify the stability of the piston-cylinder

The 60 Second Drift Test is to be performed in gauge mode after re-installing the FPG8601 piston-cylinder.   The objective is to quantify and document piston-cylinder stability. The test is performed in gauge measurement mode.

Procedure:
- After installing the P/C and turning on the lubrication pressure, allow the P/C to equilibrate with the system for 30 minutes.
- The test is performed from with FPG Tools software.
- The scope is simply to log the FPG output for 60 seconds and look for balance output deviations of no more than ± 0.2 N (0.4 N peak to peak), or a 10 second period of no change in balance output.

From FPG Tools, perform the following menu selections:
1. [Run],<Run w/ Point Log…>   This enables the data acquisition and will create a data file. Be sure to write down the data file name and path as it may be desired to look at the results.
2. [Plots],<Custom Plots>   Select the "N vs. Points" plot and press the Plot Selection button. NOTE: If the custom plot is not there, create a new custom plot by pressing the "create new custom plot" button, and then assign the "N" variable to the Y axis and the "Point" variable to the X axis.
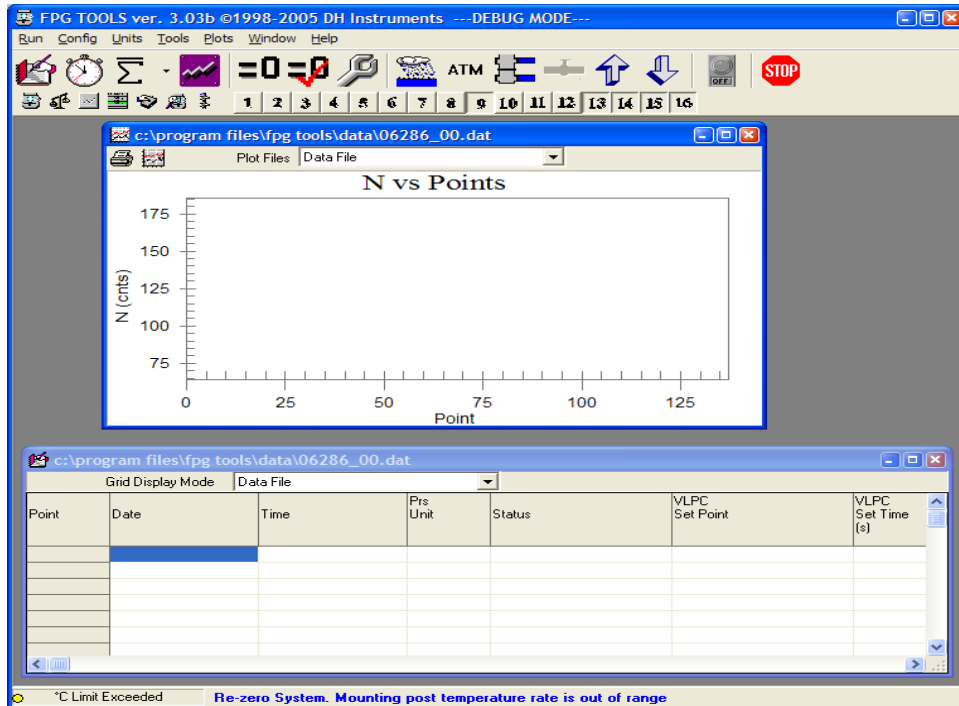
3. Click the "stopwatch" button to start timed data sampling. Set the point delay for 1 second.
4. Allow the data sampling to run for 60 seconds, and then stop it by again clicking on the stopwatch.
5. Ideally, you want to achieve a level of stability where the N value does not change for 10-15 seconds. If this is met, then the piston is clean and stable. However, any 60 second period where the N values changes by no more than 0.4 counts peak-to-peak is acceptable.

Data Analysis:
If the FPG output does not meet the stability requirements, then the piston is either dirty or not centered. The stability criteria must be met before any further system diagnostics can be performed.