

Replacing Outdated Equipment with a Standardized Measurement Solution



A large pipeline company was ready to purchase new equipment for their measurement and calibration teams. As they were located in field offices spread across different regions, the teams had traditionally made decisions on equipment purchases independently of one another. We suggested that they consider purchasing the same equipment for all of their teams, regardless of location. This would allow for consistent procedures, training, and support, as every technician would have the same, defined set of units and accessories.



Our Solution

Our HPC50 Series was determined to be a good fit for the applications that they required. In addition to outperforming other instruments in its class, it offered many user-friendly features like a bright, color display employing reflective display technology for optimum performance in different lighting environments. It was also explained that CrystalControl software could be used to set calibration due dates and warning information; to disable unneeded engineering units; and even to save set-ups on the calibrator for quick recall and reuse.

Next, we connected the HPC50 Series to our T-975 hand-pump, using it as the pressure source. The customer was excited over how quick and easy it was to connect the pump to the test gauge using our CPF fittings—making leak-free, hand-tight connections with no tape or special tools. (Evidenced by the leak indicator on the pressure measurement display.) They were impressed with the control the T-975 offered, and impressed that a higher range pump was able to also output low pressure with such fine control.



Lastly, we discussed that the calibrator and pump were offered as a system kit, supplied in a case that would protect the contents even in the bed of a pickup truck.

The customer was very impressed by the ease of setup and use of the HPC50 pressure calibrator. They felt that the Advanced Simplicity interface combined with the color display was better than any calibrator that they had seen.

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Differential Pressure and More

The customer asked about differential pressure and said that they typically perform that measurement with one side vented and deflect the other side of the sensor. We showed them the low pressure measurement capability of the HPC50 Series using only the vernier on the T-975 handpump. We then referred them to the differential pressure screen on the HPC50, and explained how it can accommodate very accurate actual differential pressures using the same pressure range sensors and the Tare function; and that this can be accomplished using an installed sensor and our external APMi sensor.

Since the customer sometimes performed transmitter calibrations, we showed them the scaling and percentage error screens on the HPC50 Series, and showed how they could have a second measurement showing in the other portion of the display. This was a big departure from the capabilities of the other calibrators the customer had been using.

We then pointed out that, while not having a voltage source onboard, the unit could simulate current values, as the HPC50 Series has the functionality to act as a current sink and produce desired current or percentage current based on the test requirements.

As the customer currently used yet *another* instrument for temperature measurement, we demonstrated how the ATMi could replace that additional instrument, while being easily connected and disconnected in the field to the HPC50's flexible port. The ATMi combined with the HPC50 Series proved to be not only fast and accurate, but could replace multiple pieces of equipment currently in use.



Barometric Pressure: The Game Changer

The ability to measure current barometric pressure accurately and quickly was the feature that garnered intense interest. The optional BARO reference provides a real-time barometric reading and allows the calibrator to change from gauge pressure measurement to absolute pressure measurement without the need of changing modules or sensors. The customer had a few applications where they measured absolute pressures and previously needed additional modules or calibrators to take those measurements. The customer explained that their new flow computers utilized a barometric reference, but that the team had been using local airports or weather stations to obtain this information, as they could not check their pressure real-time on site. This led to the potential for additional uncertainty as the barometric reading at the airport could have differed from the on site reading. Adding the BARO option to the HPC50 Series would allow them to get the on site reading whenever they needed it.



The pipeline had set aside budget enough to fund a new calibrator for each of their technicians. The pipeline purchased more than 30 kits including an HPC-50 Series, with one low pressure sensor, one high pressure sensor, and the BARO option. The kit also included the APMi along with the intrinsically safe probe and a T-970 pneumatic handpump for a low-pressure source along with all the necessary hoses and fittings, all housed in a hard sided, waterproof, carrying case to protect the system. Further online training was also offered to the pipeline training group to facilitate a train-the-trainer program and provide internal long-term support.

