NASA Innovative Partnership Program (IPP)

Setra Licenses Pressure Generator Technology

APPLICATION NOTE

Setra Systems, a leading designer and manufacturer of pressure, humidity, current and power monitoring devices licensed the rights to the patented Low Differential Pressure Generator developed at the Kennedy Space Center (KSC). The technology allows an operator to calibrate low differential pressure transducers against a transfer standard rather than using dead weight testers. NASA needed a rugged and portable system to meet the requirements for performing precision testing under various, non-laboratory conditions. Innovators at Kennedy Space Center devised and constructed the low differential pressure generator to address this need. Setra's team designed and constructed a scaled-down version of NASA's Low Differential Pressure Generator and combined it with modular high accuracy reference standards and a steeper motor, run by a proprietary control algorithm to offer class leading performance in the portable calibrator market.

Commercial Benefits

The Low Pressure Generator fills an unmet need for calibrating and certifying high accuracy, low differential pressure transducers. Setra is marketing the technology worldwide through their established domestic and international distribution channels. The primary target market is the pharmaceutical industry, which is required by the FDA to certify the accuracy of their air handling sensors. Other opportunities exist for calibrating pressure transducers used in clean rooms, isolation rooms, laboratory fume hoods and nuclear and aerospace laboratories, and dial gauges and pressure switches.

Setra MicroCal™

Partnership Contributions

Setra System's MicroCal™ product development team consists of a multidisciplinary team charged with redesigning and improving the Model 869, which was released in 2005. The newly released MicroCal™ will still offer class leading pressure generation with additional pressure references and field replaceable battery, utilizing a 7" touch screen interface. The calibrator is manufactured in their Boxborough, Massachusetts facility.

Innovative Partnership Program Role

Setra has discovered the NASA patented technology while researching and developing similar technology to be implemented into their calibrator. They contacted NASA's Southeastern Technology Transfer Center's affiliate based at North Carolina Agricultural and Technical State University on the availability of the technology. This inquiring was forwarded to Kennedy's Space Center's IPP Office. Setra wanted to secure the NASA patent, which was considered very important to their intellectual property portfolio on the calibrator. Setra worked with KSC's IPP Office to secure the rights to the patent under a license agreement.