

Many of today's industries are automating operations that were once performed manually. This requires a thorough understanding of data acquisition and process control systems. These applications require measurement and control of pressure, temperature, strain, force, flow, fluid level, and pH. Automation, recording and data collection must be performed 24/7. Call Willis Consulting of York for experience and proven results



### **Real Life Project:** Leak Testing of Small Welds

*A manufacturing company produces a product containing over 5,000 small welds that require a leak tightness of  $10^{-8}$  std-cm<sup>3</sup>/sec. Manual inspection currently takes several weeks and is not 100% reliable.*

### **Solution:** Call Willis Consulting of York

*Develop an automated test utilizing a helium mass spectrometry and the accumulation test method. The test can examine all welds simultaneously and provides for automated calibration and data collection. The solution requires an understanding of high vacuum theory along with all the data acquisition and process control. Since the test is completed in less than an hour, it is deployed using PC controls and Keithly Instruments A/D and control cards with the program written in Visual Basic.*

- Temperature
- Pressure
- Strain and Force
- Flow and Level
- pH and Conductivity
- Data Acquisition
- Thermocouples, RTD
- Recorders
- Automation
- Liner Motion Control
- Pneumatic and Solenoid Valves
- GPIB and Instrument Controls
- Relays
- National Instruments
- Keithly Instruments
- LabView Programming
- Visual Basic Programming
- Call for more Details!

