

FEATURED TECHNOLOGY:

High-Sensitivity Differential Pressure Transducer

INVENTOR (S):

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STATUS:

Patent Pending

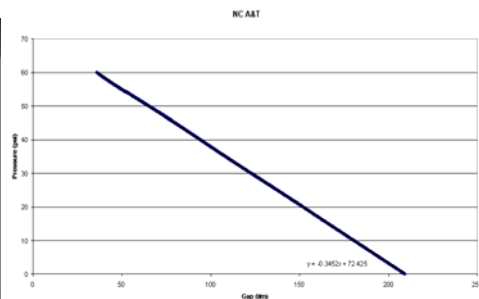
TECHNOLOGY DESCRIPTION:

The determination of small changes in pressure is important in determining minute leaks in pressurized vessels, and in determining the diffusion of gases through membranes. Monitoring small pressure changes such as leaks are extremely important when there is a possibility of dangerous material leakage. Over time, leaks can have critical consequences.

Researchers at NC A&T State University have developed a high sensitivity pressure sensor. Such sensors can measure pressure changes as low as 1/10000 psi. This technology was originally developed to replace a leak test for pneumatic tires to reduce the test time for pressure leaks, which normally requires up to two weeks to detect small pressure losses. The detector also does not require local electrical circuits. This reduces the risk of a fire due to sparks or short circuits which may occur with conventional strains gage and LVDT sensors.

END USE/APPLICATIONS:

Measuring minute gas leakage, atmospheric pressure barometer, experimental devices measuring minute diffusion rates of gases through solids, nuclear containment devices, exo-atmospheric vessels, underwater crafts, piping pressure sensors, toxic and radioactive monitoring, tire manufactures, and a permeability test



High linearity of the pressure sensor

MISSION:

The Office of Outreach and Technology Transfer (OTT) connects industrial/commercial partners with NC A&T's expertise, new products and opportunities for development while providing technology-driven business and economic benefits to the regional and state economies. The OTT is entrusted with the university's Intellectual Property portfolio to build a pipeline of novel products and concepts with commercial value.

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