



WINNER

1995 R&D 100 Awards Winner **Acoustic Resonance Spectroscopy (ARS)** **Chemical Fill Detector**

Features:

The ARS Chemical Fill Detector is the first instrument to use acoustic signatures in order to noninvasively identify fill materials inside closed containers. Moreover, our portable detector uses an automated identification algorithm to provide rapid and reliable results in the field.

Applications:

Originally developed as a noninvasive inspection tool for treaties on chemical weapons destruction, the ARS Chemical Fill Detector is suitable for any application that requires the noninvasive identification of fill materials in sealed containers. It can thus be used for the inspection of containers filled with hazardous waste and as a quality-control tool in the manufacturing and packaging of chemical products. The ARS technique holds promise for being used in applications that go beyond fill identification, such as detection of salmonella in eggs and measurement of intraocular pressure.

Benefits:

The ARS Chemical Fill Detector allows noninvasive identification of fill materials and thus eliminates the risks to human health and the environment associated with exposure to the materials. The analysis is fast and fully automated. The ARS detector can be operated easily and efficiently in the field because it is battery powered, lightweight, and easy to use.