AeroFid Family of Automatic Leak Detector for filled Aerosol Cans

Aerosol Can Leak Detector Eliminates Traditional Hot Water Bath Testing

35 Years of Continued Excellence in High Speed Automatic Inline Leak Testing for Filled Aerosol Can Leak Testing

All our AeroFid® Leak Testers are officially certified since October 2008 to be fully compliant to the ADR 2007 and FEA directive. (Hot Water Bath Alternative)

The AeroFid®60, AeroFid®100, AeroFid®200 Micro Leak Detectors certified to fully comply with all recent European (EU) Aerosol Directives and with current United Nations Standards. Detecting micro leaks in filled aerosol cans, well lower than $2X10^{-3}$ mbar.l.s.-1.s. When combined with the use of tested, certified cans, or with a pressure test system for empty cans, the AeroFid* leak detectors are certified as an alternative to the traditional hot water bath immersion test.

Manufacturers of Aerosol Can Products look to lower risk, increase their product quality, keeping up with compliance and maintaining profitability of their filling lines.

Reduced Risk while Increasing Safety

1. Performing automatic leak testing removes the chance that faulty cans remain in production and end up in storage and/or being ordered into transportation

Maximized Production while Cutting Down Material Waste

1. Very easy to use leak analyzer provides instant information to faulty can rejection and fault patterns

Ensured Quality and Regulatory Compliance

1. Optimize production output
2. Avoid product recalls

AeroFid®200

Featuring	Benefits
Very easy to use direct controls	Direct and unfiltered data and on screen information reduce waste and optimize operation
Certified compliance	Time proven very rugged design fulfills safety and quality requirements. Meets all UN ADR Regulations
Complete Support and Service	Installation, commissioning, and all required maintenance tasks available. Unparalleled sensor exchange program during scheduled certified factory maintenance with working guaranty.
Heated FID Technology with automatic sample train cleaning	HFID's stand for outstandingly long maintenance intervals and grant real savings and high product quality

Features

- All our leak testers comply with ADR 2007 and higher, with recent European EN 60079 Aerosol Directive and with United Nations Standard UN/SCETDG/INF.93
- Unusually long maintenance intervals; 12 months in average
- No sample air filter change; Automatic filter back purge is performed after every detected leak
- No problems with fogging mirrors; Windows, gates and reflectors as used spectrometer detectors. No problems with with faulty or contaminated head chamber seals or sensor heads as used in pressure testing machines
- Free scrolling cans safely pass the probe section which is automatically back purge cleaned after each detected leak
- The user defines if the maintenance free sensing sensing barrier should be calibrated once every year or once every day. One daily zero check. Machine completely calibrates in less than 10 minutes
- Very low running cost, only a small fraction compared to hot water bath testing
- Environmentally safe, no polluted water or air, very low electric energy consumption
- Standard capacity from 60 up to 300 cans per minute. High speed versions available to test up to 500 cans per minute
- Height adjustable for all available can heights
- Based on a time proven high speed detector technology which we use for over 35 years in leak detection for filled aerosol cans
- No hassle with time consuming multi-head calibration,
- Quality control and assurance; The production records and calibration records are automatically stored and are printable via USB port, including calibration report
- Smallest over all foot print industry wide, fits into virtually any conveyor line. Space requirement less than 1 m^2, no control console needed
- Highly reliable, low cost of investment and ownership, easy to operate, low maintenance
- Detect micro leaks at room temperature. No heat or vacuum needed

General:

Bautz Engineering's AeroFid® family of Micro Leak Detection Systems for filled aerosol cans offers over 35 years of proven, very reliable, economical and practical solution to achieve immediate production savings and improved safety and quality by eliminating bubble detectors and water bath operators. In addition, the complementary water bath test method with partially submersed cans generates accurate data to be easily and consistently gathered as an integral part of a quality management system like ISO 9000 or similar to force improvements in quality and the supply chain.

The AeroFid° leak detectors are using the by far smallest footprint in the industry for high speed aerosol can micro leak detectors. No external control console is needed. All controls ans displays in eye height on machine front. This compact, „over the conveyor" machine houses the high speed leak sensor, control panel with touch screen display and air generator. Our long standing, fast responding Model JUM 22B hydrocarbon propellant sensor automatically extracts one sample at a time from the head, crimp and valve area of each individual aerosol can. Jam controlled by a star wheel or feed worm, the cans freely scroll through sensing area. Immediately after a leak was detected, the faulty can is rejected from the conveyor. For speeds up to 100 cans per minute (CPM), per minute our AeroFid®60 should be considered, above 100 CPM our AeroFid®200 or AeroFid®500 should be considered. The AeroFid®500 space requirement is only slightly more than for all other machines.

Looking for micro leaks as specified in recent *UN/FEA regulations* can become very difficult when the bubble detection method in a conventional hot water bath is used. Water bath alternatives in line with UN ADR requirements like the AeroFid° line of leak detection systems are the ideal solution.

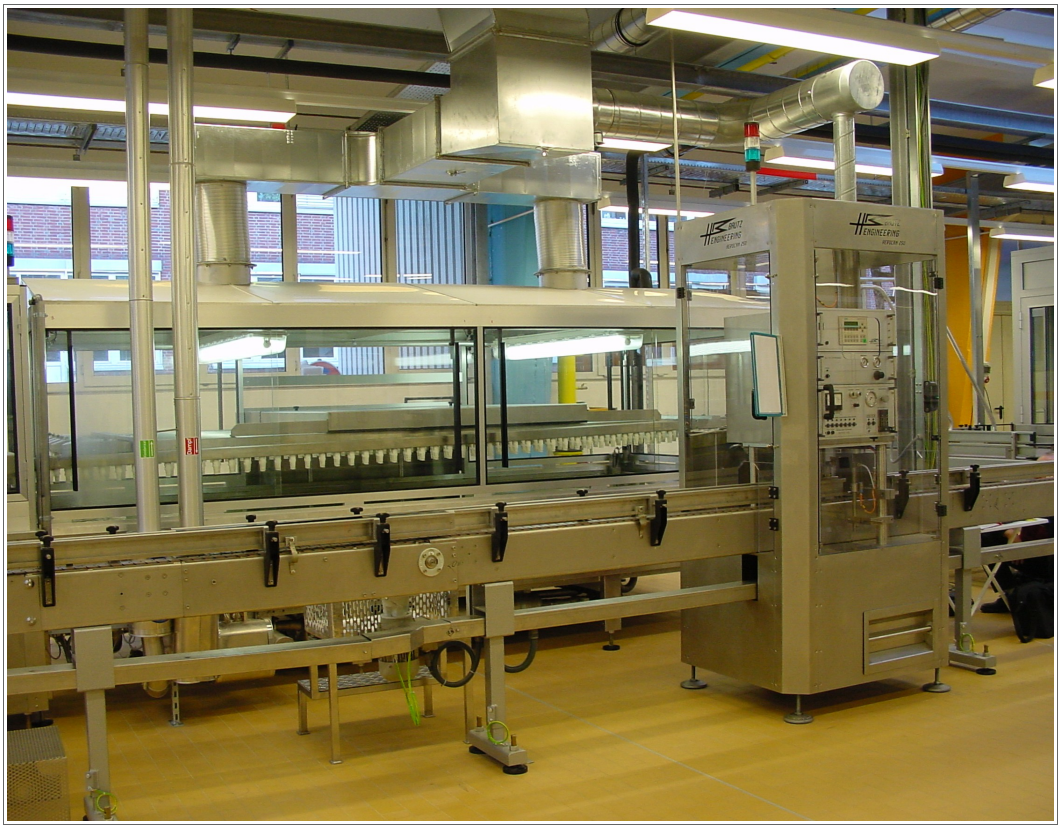
Principle of Operation:

The AeroFid° is a fast responding automatic leak detector for filled aerosol cans using our decade long, time proven, standard heated ionization technology in a compact rack mount sensing module. The very fast responding leak analyzer extracts a sample from the head and valve area of an aerosol can with a regulated gas flow of a few liters per minute. The extracted gas from the leak is finely filtered and directed to the detector via a high precision toggling device and a metering module. The sample conditioner is designed to rinse the entire system after a leak occurred at every half step between detecting the aerosol cans to rinse the entire system including the probe tip with zero gas. Aerosol spray cans with propellants like propane/butane, or other hydrocarbons and/or hydrocarbon mixtures or HFA may have micro leaks as low as, or lower than $2X10^{-3}$ mbar.l.s-1..

Once a leaking can reaches the sensing area, leaking gas is extracted into the detector and the sample filter is automatically purged clean. As soon as the leak concentration is measured, the stored data are used to reject the leaking can from the conveyor into a safe container. The various AeroFid leak testers are capable to detect from over 80 to up to 500 cans per minute.

Technical Data	
Capacity	Max. 60, 120, 250 and up to 500 cans per minute
Can Separation	AutoSense° Star wheel or feed worm with automatic jam control
Sensitivity	Much better than required $2X10^{-3}$ mbar.l.s-1; Leakage rate in full compliance with current UN and EU regulations
Detection method	Certified heated FID fast analyzer
Zero drift	<2.5% full scale / 24h
Span drift	<2.5% full scale / 24h
Measuring ranges	0-10,100, 1.000, 10.000, 100.000, units, others on request
Analog outputs	0-10 VDC, RS232 optional
Display	3 1/2 digit LED display with second LED bar graph display plus touch screen in control section
Sample	Automatic extraction, max. 4 lpm capacity @ operating temp.
Zero and span adjust	Manual on front panel
Fuel consumption	approx. 60 ml/min of 100% H_2 @ 1.5 bar (22 psi)
Compr. air consumption	Non, built in burner air supply
Sensor temperature	180°C (374°F)
Temperature control	µ-processor PID controller
Ambient temperature	5-43°C (41-110°F)
Dimensions of sensing module (W x D x H)	19" (483 mm) x 460 mm x 132 mm
All over all footprint leak tester and sensing module (W x D x H)	900 mm x 900 mm x 1900 mm

All controls located inside of our machine, no external console used



250 CPM Leak Tester shown installed after a hot water bath

Bautz Engineering GmbH
Sales, R&D and Manufacturing

Simmerner Str. 8
55442 Stromberg, Germany
Phone: +49-(0)6724-93150
Fax: +49-(0)6724-931525
E-mail: info@bautzengineering.de Web: www.bautzengineering.de