



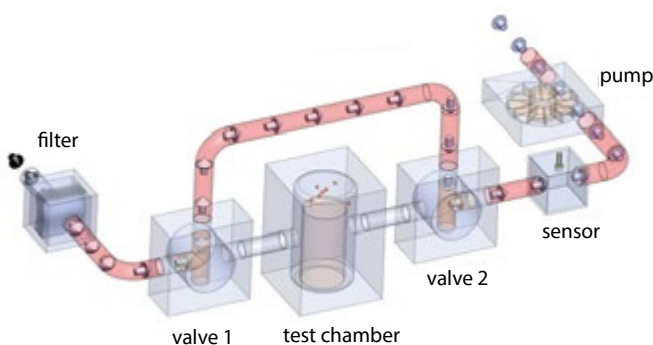
- ✓ Highly sensitive
- ✓ Low cost
- ✓ Fast
- ✓ Pressureless
- ✓ Broadband (for ingredients)
- ✓ Selective (for tracer gases)
- ✓ Modular

The Hydrogen Leak Tester for leak rates down to 10^{-6} mbar · l/s

The Hydrogen Leak Tester is a modular system for leak testing of gas-filled or liquid-filled product packaging and molded components and parts. The system's patented and highly sensitive operating method is based on the detection of gases or vapors evaporating from such packaging or molded parts in case of leakage.

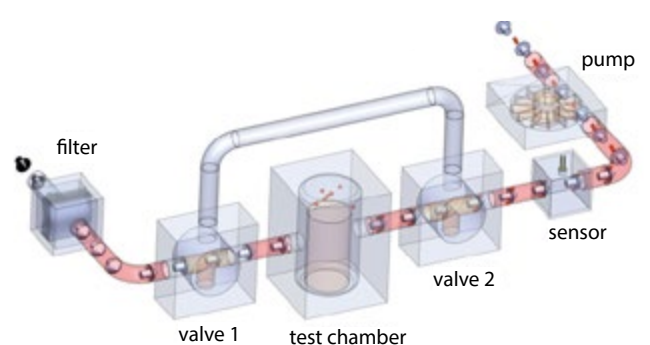
If the packaging or molded parts do not already contain gases or vapors, tracer gases can be injected prior to leak testing. Typical test gases and test vapors are forming gas 95/5 (95% nitrogen and 5% hydrogen), alcohols, solvents and other volatile organic gas- and vapor mixtures. A multiphase test sequence with a reference phase, which suppresses ambient fluctuations, enables the detection of leaks up to 10^{-6} mbar · l/s.

Accumulation

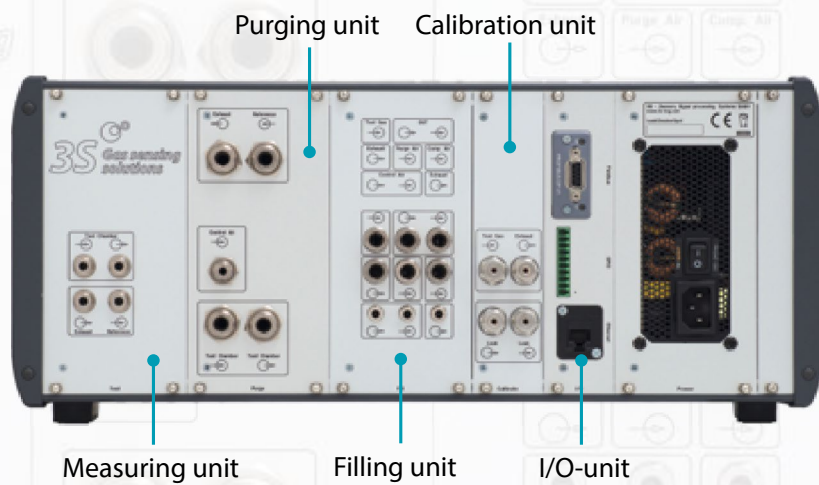


1. The test medium escaping from a leak in the test part is accumulated in a closed test chamber.

Injection



2. The gas volume from the chamber passes the sensor and the resulting signal is measured.



Measuring method

- Detection limit: 10⁻⁶ mbar · l/s (optimal configuration)
- Automated test procedure
- Different test methods
- Pressure at the test piece: approx. 1 bar
- Selective sampling (via pump)
- Flow rate: 1 - 3 l/min (optional: 180 - 700 ml/min)
- Detectable gases: all oxidisable and reducible gases

Power supply

- 100 – 240 V / 50 – 60 Hz

Dimensions and weight

- L x H x W: 465 mm x 198 mm x 315 mm
- Weight without test chamber: 9 - 12,5 kg

Configuration

- Sensors for pressure, flow, humidity (option)
- Operation of an external test chamber
- Control of sensors, valves, heating - additional external components on demand
- Touch screen operation
- USB port

Measuring unit

- Number of gas sensors: 2 (depending on application)
- Sensors for pressure, flow, humidity (optional)
- Connection: tube Ø 4 mm (other sizes on demand)

Purging unit

- Purging gas pressure up to 2 bar
- Connection: tube Ø 6 mm (other sizes on demand)

Filling unit

- Evacuating DUT
- Filling DUT with test gas
- Purging DUT with compressed air
- Filling pressure: 0 – 8 bar
- Connection: pipe Ø 6 mm

Calibration unit

Test leak with tracer gas

- Pressure on test leak : 0,9 - 7 bar
- Test leak incl. 3-point calibration
- Connection: pipe Ø 3 mm

I/O-unit

- Ethernet (optional)
- Proprietary, extensible module interface (on demand)
- Profibus (optional)
- Additional interfaces (on demand)

