

LEAK TESTING WITH TRACE GASES

HELIUM & HYDROGEN



LEAK TESTING WITH HELIUM

Non-toxic, odorless, and easily detectable – the inert gas helium offers numerous advantages. It occurs only in low concentrations in atmospheric air and does not react with other materials. This enables quick testing and finding even the smallest leaks.

Air

- Low cost of testing
- Also for large leaks
- Easier implementation of testing systems

Available modules

- RD** Gauge pressure
- RD/GP** Gauge pressure with bell testing
- RD/DF** Gauge pressure with flow
- DD** Differential pressure
- SD** Stagnation pressure
- MF** Mass flow

Helium

- Low occurrence in environment
- Smaller leak rates measurable
- Unaffected by temperature and volume changes

Available modules

- IV** Integral vacuum test
- SP** Sniff test
- AK** Accumulation test

MODULES FOR LEAK TESTING WITH TRACE GASES



INTEGRAL VACUUM TEST

Application: in production environments

The test item is placed in a vacuum test chamber and filled with test gas. If there is a leak, the test gas will be leaking out of the test item into the test chamber where it is measured by the leak detector.

- + Very high sensitivity
- + High throughput
- + Easy to integrate into the production line
- + Easy to calibrate
- + High repeatability



SNIFFING TEST

Application: for leak localization of pressurized parts

The test item is pressurized with test gas. Then the sniffer probe is placed around the part. If there is a leak, the leak detector will detect the escaping test gas and determine the location of the leak.

- + Localization of the leak
- + The test object does not need to be emptied in most cases – or at least not entirely.
- + Easy to perform

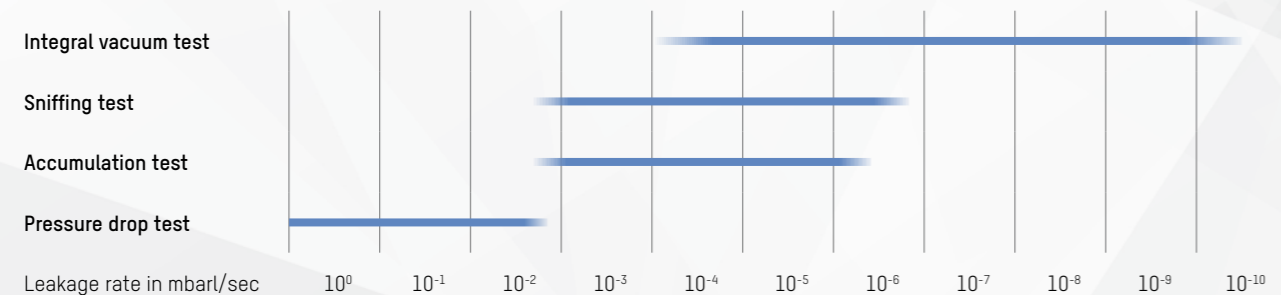


ACCUMULATION TEST

Application: The test item must be tested as a complete product.

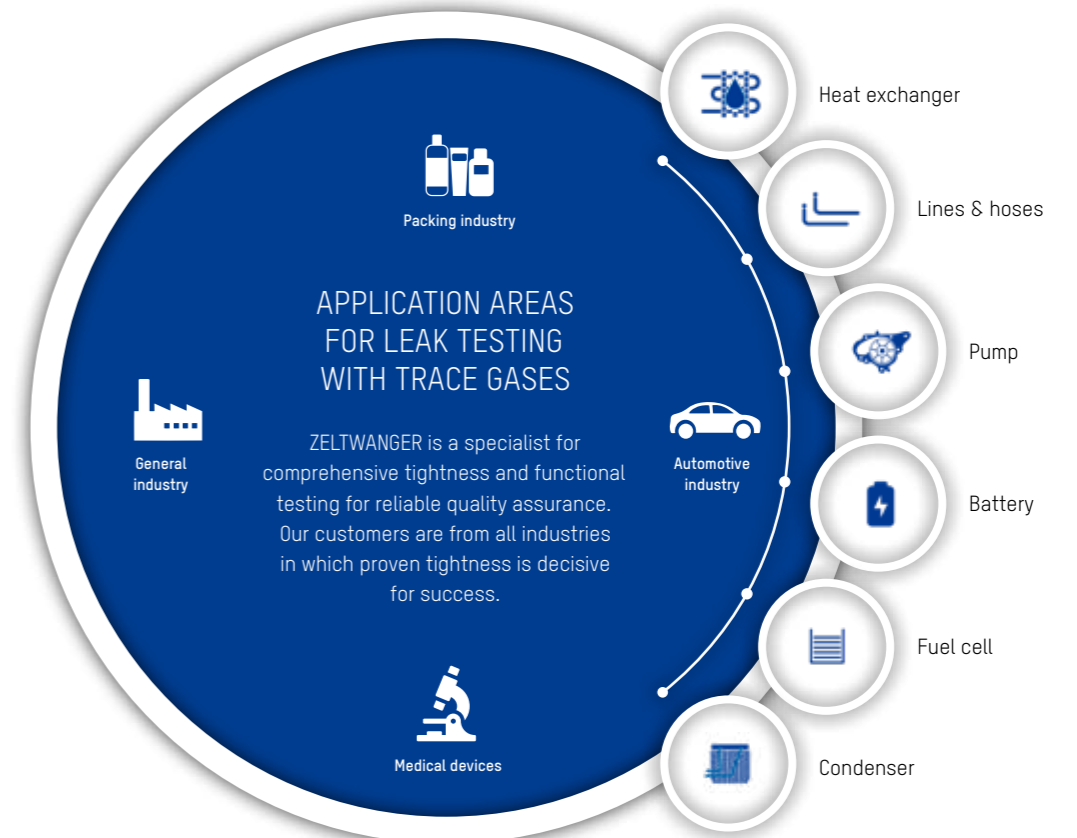
The test item is placed into a simple collection chamber under atmospheric pressure and filled with test gas. After an accumulation period, the detector analyzes the air in the chamber and determines whether an increase in the test gas concentration is measurable.

- + Easy to integrate into the production line



MORE SAFETY FOR THE TECHNOLOGIES OF THE FUTURE

For many products, tightness is paramount for their functionality and reliability. ZELTWANGER has made it its business to develop customized, comprehensive, and demand-oriented leak testing concepts for its customers. Take advantage of our expertise from a single source: from the test concept to final assembly.



ZEDcell: Maximum flexibility at the highest technical level – for assembly, robotics, leak testing, and laser applications

ZEDsystem: Individually configurable sliding carriage system for leak testing (additional processes can also be integrated)

ZELTWANGER LEAKTESTING & AUTOMATION ENSURING OUTSTANDING QUALITY

Leak testing by ZELTWANGER has a systematic approach. Because effective leak and functional testing does not only require ideal equipment, but also a perfectly tuned overall concept. That's why, as a technology and innovation leader in leak testing with air and tracer gases, we offer not only modular high-end testing devices, but also comprehensive solutions in the areas of automation, adaption, service, and consulting.



ZELTWANGER Leak Testing & Automation LP
4947 Fargo Street
North Charleston, SC 29418
United States of America
www.zeltwanger.com



ZELTWANGER Leaktesting & Automation GmbH
Maltschachstr. 32
72144 Dußlingen, Germany
Tel: +49 7072 92897-501
www.zeltwanger.de



ZELTWANGER Leaktesting s.r.o.
Blanenská 1857 / 8
66434 Kuřim
Czech Republic
www.zeltwanger.cz



ZELTWANGER Leak Testing
No. 6 West Bailongjiang Street
Jianye District, Nanjing 210019
P. R. China
www.zeltwanger.com