Alfa Laval Integrity Test

Preventive maintenance for heat exchangers

What is it?

Tubular and gasketed plate heat exchangers are resilient, but like all equipment they require proper maintenance.

Alfa Laval Integrity Test can identify the smallest of emerging flaws, so that you can plan your maintenance and prevent unexpected downtime or failures.

- Thinking Ahead. Leaks in heat exchangers lead to unplanned shutdowns or unexpected downtime, and can cause entire batches of product to be damaged or lost. Our integrity test helps you anticipate potential cracks and leaks, so you can act before any damage is done.
- **Data & Insights.** Our Integrity Test reveals the condition of your plates and gaskets. With these insights you can schedule servicing to suit your business needs and stay in control of your production process.
- **Reliability.** A proactive approach gives you confidence and reliability of your equipment, so you can plan for the future with certainty.





How it works

Our integrity test offers unmatched convenience, accuracy, speed and safety.

A non-toxic, non-flammable mix of hydrogen (5-10%) and nitrogen is pumped through your heat exchanger, revealing any leakages, microscopic cracks, corrosion or material fatigue.

Our precision sensors pick up any discharge of gas and identifies the type of flaw (micro-crack, corrosion, gasket failure etc.) The test takes as little as 15 minutes per section. This test is performed without disassembly of the heat exchangers and provides data report generated by software.



Adding value to your daily operations

Product Safety

The risk of product safety and product loss is decreased. This leak detection test identifies the conditions of plates, whether corrosions or micro-cracks and reduces the risk of product safety.

Equipment Uptime

Improve maintenance planning and avoid unexpected downtime. Doing this test once or twice a year will significantly improve maintenance planning and ensure the equipment is in good condition. As a result, the lifespan of your heat exchangers is prolonged.

Environmental Friendliness

This hydrogen test reduces the environmental footprint of chemicals, Helium or water compared to other test methods.

Compliance

The integrity test is a well-established method to fulfilling your regulatory demands. Accurate results from a fully automated system provide reliable documentation for audits supported by Alfa Laval recommendations.

This preventive maintenance service is an optimal solution to enable cost savings in your maintenance and optimize maintenance planning.

Learn more about Alfa Laval Integrity Test on www.alfalaval.com/integrity-test

How the Alfa Laval method compares with other field tests

Inspection range / failures

Methods – field testing	Plate cracks	Micro cracks >30 µm	Micro cracks <30 μm	Corrosion	Fatigue	External gasket leakage
Water pressure test	\checkmark	×	×	×	×	×
Conductivity test	\checkmark	×	×	×	×	×
Tracer fluid test	\checkmark	\checkmark	×	×	×	×
Field dye test*	\checkmark	\checkmark	 ✓ 	×	×	×
Field Helium test**	\checkmark	\checkmark	~	×	×	×
Alfa Laval Integrity Test	\checkmark	\checkmark	 ✓ 	\checkmark	\checkmark	\checkmark

*Introducing substance that require cleaning afterwards. **Require vacuum & risk for background contamination.

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