The “dry” standard for
vacuum leak testing.

UL1000 Fab

Mobile Helium Leak Detector
ULTRATEST® Sensor Technology

INFICON

Cost-Effective Leak Detection with Minimal Contamination Risk

The INFICON UL1000 Fab Helium Leak Detector is the renowned standard when it comes to economic helium vacuum leak testing in industrial or semiconductor environments.

Potential contamination of the tested parts or equipment by carbon-hydrogen compounds or particles is eliminated through the instrument's dry pump technology. The UL1000 Fab provides the best compromise between high performance, unparalleled robustness, and affordability. It provides state-of-the-art detection limits of 10^{-12} mbar·l/s combined with reasonable short pump down and response time.
The compact design provides high maneuverability in areas with restricted space. To simplify installation, all the electrical and mechanical connections are located together on one side of the instrument.

ADVANTAGES AT A GLANCE

- ✓ Minimize leak testing efforts through quick pump down and response time
- ✓ Avoid need for multiple leak tests by using selectable background suppression (I·ZERO)
- ✓ Access confined maintenance spaces through compact design
- ✓ Low total cost of ownership (TCO) enabled by a robust two hot filament ion source with a 3-year warranty; 24 months warranty on all other components
- ✓ Easy to use with rotatable display, optical and audible leak indication, and optional remote control
- ✓ Low maintenance via a built-in test leak with auto calibration procedure

The selectable background suppression (I·ZERO) enables continuous leak testing within at least two decades lower than existing background levels. All features enable you to shorten the time of your leak testing efforts while assuring that all leaks can be identified at an economic scale.

TYPICAL APPLICATIONS

- ✓ Industrial vacuum equipment manufacturing with high demand for cleanliness
- ✓ Vacuum components or sub-assemblies before they are installed in existing tools
- ✓ Maintenance work on vacuum tools, with or without support from their own pump
- ✓ Inspections and installations of process gas systems
- ✓ Semiconductor, flat panel display or solar cell manufacturing

ROTATABLE DISPLAY

- Large-character integrated display for readings from considerable distances
- Different display modes: digital, bar graph, trend or circula
- Most important basic functions (Start, Zero, Stop) available at your fingertip
- Intuitive operation
- Potection against unauthorized use or unintended modifications

ULTRAFAST DETECTION WITH I·CAL

The special software algorithm I·CAL provides:

- Measurements at unsurpassed speed in the 10^{-12} mbar l/s range, making that decade truly usable
- Responds with unparalleled speed and stability in this low measurement range
- At background readings of 1 x 10^{-12} mbar·l/s, an ultra-tiny leak of 1 x 10^{-10} mbar·l/s displayed in less than a second

SMART-SPRAY HELIUM SPRAY GUN

The revolutionary Helium Spray Gun from INFICON eliminates the hassle of heavy cylinders, long hoses, and manual flow adjustments while ensuring low helium consumption and reduced costs.

ULTRATEST SENSOR TECHNOLOGY

- 180° mass spectrometer
- All components made of stainless steel
- Ruggedized ion source with 3-year warranty
- Pre-amplifier with highest sensitivity in industry

REMOTE CONTROL

- >8 hours remote operation up to 100 m
- 3.5 in. full color touch screen display
- Wired RC1000C and wireless transmitter to connect >2 leak detectors

TESTING FACILITY

The test chamber TC1000 makes the UL1000 Fab a reliable and user-friendly workstation for testing hermetically sealed parts (acc. to MIL-STD 843, Method 1014), available as an option.

MOBILE FOR ADDED CONVENIENCE

Low center of gravity, large wheels, sleek profile and ergonomic handle ensure mobility throughout the facility. The maneuverability is uncompromised by floor vibrations, steps, thresholds or cables.

DESIGNED FOR EXCELLENT PRICE, PERFORMANCE AND RESULTS

- Superior leak testing efficiency in semiconductor applications
- Fast, accurate, stable and repeatable results
- Manufactured in oil-free, cleanroom conditions
- No consumable costs, down time, maintenance expense or filament changes

Your Specialists for Leak Detection Solutions

INFICON offers globally leading technologies in measurement and sensor technology, as well as process management for demanding vacuum processes in highly specialized industries. INFICON products for gas leak detection are used particularly in cooling and air conditioning technology, semiconductor manufacturing and automotive production. With INFICON you have an expert consultant at your side who knows the challenges of your industry and works with you to find the right solutions for your needs. INFICON guarantees top service and maximum support with specialized experts at many branch offices around the world. Leading manufacturing facilities are located in the United States, Asia and Europe, with subsidiaries in China, Denmark, Finland, France, Germany, Italy, Japan, Korea, Liechtenstein, Malaysia, Mexico, Singapore, Sweden, Switzerland, Taiwan, the United Kingdom and the United States.

UL1000 FAB MOBILE HELIUM LEAK DETECTOR

SPECIFICATIONS	
Min. detectable leak rate for helium (vacuum method)	<5 x 10^{-12} mbar l/s
Min. detectable leak rate for helium (sniffer mode)	<5 x 10^{-8} mbar l/s
Max. inlet pressure	15 mbar
Pumping speed during evacuation	25 m^3/h
Helium pumping speed at the inlet (ULTRA mode)	2.5 l/s
Detectable masses (ULTRATEST Sensor Technology)	2, 3, 4 (H_2, ^{3}He, He)
Supply voltages	100-120 V; 220-240 V
Dimensions incl. handle (L x W x H)	1068 x 525 x 850 mm (42 x 21 x 33 in.)
Weight	110 kg; 242 lb.

ORDERING INFORMATION	
PRODUCT	Cat. no.
UL1000 Fab, 230 V 50 Hz UL1000 Fab, 115 V 50/60 Hz	550-100A 550-101A
ACCESSORIES	
SMART-Spray helium spray gun set	551-050
Test chamber TC1000 incl. ESD wrist band Test leak adapter for TC1000, DN 25 KF flange	551-005 200 001 797
Remote control with touch screen: -RC1000WL, wireless including wireless transmitter -Wireless transmitter for connection of > 2 leak detectors with one RC1000WL -RC1000C, wired, including 4 m spiral cable -Extension cable, 8 m for RC1000C	 551-015 551-020 551-010 140 22
Toolbox with lock, attachable	551-000
Helium bottle holder	551-001
ESD mat	551-002
Sniffer line SL200, 4 m length	140 05

INFICON Inspired by visions. Proven by success.

www.inficon.com reachus@inficon.com

Due to our continuing program of product improvements, specifications are subject to change without notice.
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