



UL1000 Fab

Mobile Helium Leak Detector
ULTRATEST® Sensor Technology

The “Dry” Standard for
Vacuum Leak Checking



The “dry” standard for vacuum leak testing

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

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



10^{-12} mbar-l/s combined with reasonable short pump down and response time. The compact design provides high maneuverability allowing easy access to maintenance areas with restricted space. 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.

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)
- Enable easy access to maintenance areas with restricted space through maneuverable design
- Low total cost of ownership (TCO) enabled by robust two hot filament ion source (3 years warranty) and counterflow vacuum system
- 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



CONVENIENT ROTATABLE DISPLAY

- Rotatable control interface
- Information in large characters on integrated display for readings from considerable distances
- Different display modes: digital, bar graph, trend or circular
- Most important basic functions (Start, Zero, Stop) available at your fingertip
- Intuitive operation
- Protection against unauthorized use or unintended modifications

MOBILE FOR ADDED CONVENIENCE

A low center of gravity, large wheels, ergonomically positioned handle and sleek profile ensure mobility throughout the facility. The instrument's maneuverability is uncompromised by rolling vibrations on the floor grid or by barriers such as small steps, door thresholds or cables.

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 1×10^{-12} mbar-l/s, an ultra-tiny leak of 1×10^{-10} mbar-l/s displayed in less than a second

CONTROL AND DATA LOGGING VIA PC

The optional software package Leak Ware makes it possible to acquire, display and store measurement data in spreadsheet programs.

CONNECTIONS TO ONE SIDE

To simplify installation, all the electrical and mechanical connections are located together on one side of the instrument.

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



TESTING FACILITY

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

LOW OPERATIONAL AND MAINTENANCE COSTS

- Three year warranty on INFICON ion sources
- Free replacement in case of failure
- No consumable costs, down time, maintenance expense or filament changes
- 24 months warranty on all other components

DESIGNED FOR EXCELLENT PRICE, PERFORMANCE AND RESULTS

The UL1000 Fab provides:

- Superior leak testing efficiency in semiconductor applications
- Fast, accurate, stable and repeatable results



MANUFACTURED FOR QUALITY

- All INFICON components and leak detectors are:
- Manufactured in oil-free, cleanroom conditions
 - Quality tested for optimum performance



REMOTE CONTROL FOR WIRELESS OPERATION

The optional RC1000WL provides:

- More than 8 hours remote operation for distances of up to 100 m
- 3.5 in. full color touch screen display with intuitive usage
- Wired RC1000C version and wireless transmitter to connect >2 leak detectors



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 US and Europe, with branches in China, Denmark, France, Germany, Japan, Korea, Liechtenstein, Singapore, Switzerland, Taiwan, Great Britain and the US.

UL1000 FAB MOBILE HELIUM LEAK DETECTOR

SPECIFICATIONS

Smallest detectable leak rate (vacuum mode)	<5 x 10 ⁻¹² mbar-l/s
Smallest detectable leak rate (sniffer mode)	<5 x 10 ⁻⁸ mbar-l/s
Max. Inlet pressure	15 mbar
Pumping speed during evacuation	25 m ³ /h
He 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
Weight	110 kg; 242 lb.
Dimensions, incl. handle (L x W x H)	1068 x 525 x 850 mm (42 x 21 x 33)

ORDERING INFORMATION

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



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