UL6000 Fab Series
Pit stops in best times

The ultimate in leak testing

INFICON

ISO 14001
ISO 9001

Premium Quality
made in Germany

INFICON – Your specialist for the most reliable leak testing

With its high-precision measuring devices such as the UL1000 Fab and the UL5000, INFICON has held the pole position in leak testing for over 15 years.

The UL3000 Fab (ULTRA) set new standards. With the innovative UL6000 Fab product series, we are moving into the passing lane and defining a new benchmark for quickly detecting leaks. For vastly shorter downtimes and the highest productivity of our customers.

EXAMPLES OF UL6000 FAB SERIES APPLICATIONS:

Semiconductor manufacturing
computer chips, processors, memory, or other semiconductors

Flat panel display manufacturing
from the smallest smart devices to large flat screens

Solar cell manufacturing
terrestrial solar cells and high-capacity models for space technology

Aerospace
components, assemblies and systems

EXCELLENT SUPPORT INCLUDED

We are always happy to provide extensive training by our Sales & Application Support. Also, our worldwide customer service, with its extensive experience in gas measuring technology, guarantees for a long lifetime of the device.

Deal with downtime at record speed

Every second counts during leak testing, since unscheduled equipment downtime is very costly to companies. Dedicated fast-response teams suddenly become the pit crew and must find and repair leaks very quickly.

The UL6000 Fab series by INFICON is not only the most precise, durable and reliable testing system on the market, it also saves time throughout the testing sequence. These benefits, along with the intuitive handling, help your pit crew find even the smallest leaks in record time.

ADVANTAGES AT A GLANCE

INNOVATIVE BOOSTER PUMP
- Speed and precision, shorter response times and quicker helium removal, especially with large volumes

VACUUM BACKING PUMP
- Shortest pump-down time, very durable, requires minimal maintenance, resists water vapor pressure

ROBUST VACUUM SYSTEM
- Extremely resistant against unintentional shock venting, requires only minimal maintenance

I·CAL – exclusively by INFICON
- Time-saving software algorithm, reduces noise to a minimum without missing details such as the slightest real signal peak

I·ZERO 2.0 – exclusively by INFICON
- Low helium background in the briefest time, reliably detects even the smallest leaks

MASSIVE MODE – exclusively by INFICON
- Leak testing beginning at atmospheric pressure, spray method detects large leaks as well

HYDRO·S – exclusively by INFICON
- Eliminates the water content in the signal to quickly reach a low background at the beginning of the test

I·CHECK – exclusively by INFICON
- Measures helium concentration in the environment to ensure optimum measurement conditions

I·RISE – exclusively by INFICON
- Provides in-device rate-of-rise measurement combined with helium spraying method

I·RISE: RATE-OF-RISE IN UNDER 10 SECONDS

Leak detection is both time-consuming and complex. If the integral leak test, which helps monitor semiconductor and vacuum equipment during operation, indicates leaks, their positions are then localized using the helium spraying method allowing for the required repair. This is followed by another leak test using pressure increase or so-called vacuum decay measurement – until all leaks are detected. Moreover, measurement times for this procedure are often particularly long for large equipment volumes.

The new UL6000 Fab PLUS now performs pressure increase measurement all by itself and combines it with the helium spraying method. Our patented system enables measurement times to drop drastically, and thus helps minimize both general time for leak testing and fab equipment maintenance. Experience even faster and more precise measurement results – in under 10 seconds, independent of chamber volume.

TWO INNOVATIVE PUMPS FOR GREATER SPEED

Our **booster pump,** with a capacity of over 36 l/s, has the highest helium pumping speed on the market, which ensures the shortest response times even at large volumes.

Our **roots pump** also exceeds other models with a comparable maximum air pumping speed of 36 m^3/h. Powerful pumping speed for shorter evacuation times.

And with a minimum detectable leak rate of $5 \cdot 10^{-12}$ mbar·l/s, the UL6000 Fab series is clearly the leader in precision!

RELIABLE HANDLING

When time is of the essence, you must be able to operate the device intuitively. The user-friendly control unit is the key. The menu navigation is particularly intuitive and is easy to use after a brief introduction. The software also has a practical help feature for any questions that might come up.

ULTRATEST® sensor technology – exclusively by INFICON

- Helium detection with proven 180° mass spectrometer
- Components and materials that meet the most stringent demands
- Reliable ion source with **three-year warranty**
- Detection of the slightest helium quantities, with the highest degree of sensitivity in the industry

LARGE CONNECTING FLANGE DN63

The UL6000 Fab series by INFICON uses a DN63 ISO-K connection. When a DN63 corrugated hose is used for the connection, the throughput is more than twice as high as with a DN40 corrugated hose, resulting in a quicker test result. Of course, with an adapter, DN40 ISO-KF can be used as well. Even with a DN63/40 adapter, the helium pumping speed of 30 l/s is unrivaled.

MODERN CONTROLLER WITH TOUCH DISPLAY

The controller for the UL6000 Fab series offers you complete control and an overview of all the measurement results in any position, with its swiveling, high-resolution 7-inch LED touch display.

ALWAYS THE RIGHT INTERFACE

Do your quality requirements demand transparent documentation? The various interfaces on the mobile UL6000 Fab series leak testers mean that data can be exported easily at any time. Just choose between the Wi-Fi, LAN or USB ports.

SLIM DESIGN FOR EASY HANDLING

Transport to the testing site must be quick and uncomplicated. The slim design of the UL6000 Fab series makes it easy to maneuver, even when space is tight. It also leaves more room for maintenance work around the equipment and is easy to store.

SNIFFER LINE AND HELIUM BOTTLE HOLDER

Our sniffer line SL3000 is available in different sizes. Choose between lengths of 3, 5 and 10 meters. Helium bottles can easily be attached to the leak tester with the bracket available separately.

PRACTICAL STORAGE COMPARTMENT

Store vacuum parts and accessories in the instrument's built-in compartment in the leak detector. This means all of the components you need are on hand when you are in a hurry.

LOCKABLE CASTERS

The sturdy footing of the leak detector is an important safety aspect. The lockable, durable casters ensure the stability of the instrument for safe and secure operation.

ALTERNATIVE CONTROLLERS

Wireless remote control

Full color, 3.5" touchscreen display – the controller for the UL6000 Fab series offers you complete control in any position. And with a resolution of 240 x 320 pixels, you will always have an overview of all of the relevant measurements.

The flexible web app

The UL6000 Fab series of mobile leak testers can be controlled via a web app, making the devices very easy to handle. This allows platform-independent control from any device. Just connect to Wi-Fi and open the web app to get started.

HDMI

The HDMI interface allows to connect an external touch display.

UL6000 Fab Series

SPECIFICATIONS	UL6000 Fab	UL6000 Fab PLUS
Min. detectable leak rate for helium (vacuum method)	$<5 \cdot 10^{-12}$ mbar·L/s	
Min. detectable leak rate for helium (sniffer mode)	$<5 \cdot 10^{-8}$ mbar·L/s	
Max. inlet pressure (MASSIVE mode)	atm. (~1013 mbar)	
Type of roughing pump	roots	
Max. pumping speed of roughing pump	36 m³/h	
Pumping speed @ inlet (100-1000 mbar)	23 m³/h	
Pumping speed @ inlet (10-100 mbar)	26 m³/h	
Pumping speed @ inlet (1-10 mbar)	26 m³/h	
Max. helium pumping speed (ULTRA mode)	>36 L/s	
Max. helium pumping speed DN63 reduced to DN40	~ 30 L/s	
Response time for 50 L	1.4 s	
Evacuation time to 1 mbar 50 L	52 s	
Evacuation time to 1 mbar 100 L*	104 s	
Evacuation time to 1 mbar 500 L*	527 s	
Evacuation time to 1 mbar 1000 L*	1054 s	
Venting 50 L to atm.	16 s	
Run up time for operation	<2 min	
Time for calibration	<30 s	
Time for rate-of-rise measurement (I·RISE)	–	<10 s
Inlet flange	DN63 ISO-K	
Detectable masses (ULTRATEST Sensor Technology)	2, 3, 4 (H_2, ^{3}He, He)	
Supply voltage	100 bis 230 V 50/60 Hz	
Max. Power Consumption	1500 VA	
Typ. Power Consumption	700 VA	
Dimensions (l x w x h)	1050 x 472 x 1040 mm	
Weight	143 kg	144 kg

*extrapolated

ORDERING INFORMATION	
PRODUCT	**Cat. no.**
UL6000 Fab (100 to 230 V 50/60 Hz)	550-520
UL6000 Fab PLUS (100 to 230 V 50/60 Hz)	550-530
ACCESSORIES	
DN63-ISO K Connection Kit (1x hose 1 m, 1x 90° elbow, 2x center ring, 2x clamp set)	551-225
DN63-ISO K/DN50 ISO KF Bellow 1 m	551-226
DN63-ISO K/DN40 ISO KF Bellow 1 m	551-227
Remote Control RC1000WL, wireless, incl. wireless transmitter	551-015
Remote Control RC1000C, wired, with 4 m coiled cable	551-010
Vacuum Hose Holder for DN25 or DN40	551-202
Vacuum Hose Holder DN63	551-207
SL3000-3, sniffer line 3 m length	525-001
SL3000-5, sniffer line 5 m length	525-002
SL3000-10, sniffer line 10 m length	525-003
Bracket for SL3000	551-203
SL200, Sniffer line + el. extension for UL3000/6000	551-210
Helium bottle holder	551-201
I/O 1000 Module	560-310
BM1000 Profibus module	560-315
BM1000 PROFINET IO module	560-316
BM1000 DeviceNet module	560-317
BM1000 Ethernet/IP module	560-318
Data Cable 0.5 m for IO1000, BM1000	560-334
Data Cable 2 m	560-332
Data Cable 5 m	560-335
Data Cable 10 m	560-340

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www.inficon.com reachus@inficon.com