



# UL6000 Fab Series Helium Leak Detector

The ultimate in leak testing.



# Deal with Downtime at Record Speed

Every second counts in leak testing, as unplanned downtime is costly. Technicians must detect and fix leaks 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 fab team find even the smallest leaks in record time.

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

Leak detection is often complex and time-intensive. After an integral test indicates a leak, technicians typically localize it using helium spraying, followed by repeated pressure rise or vacuum decay tests—especially time-consuming for large volumes.

The UL6000 Fab PLUS streamlines this process by combining pressure rise measurement with helium spraying in a single, automated step. This patented solution drastically cuts measurement time, reducing overall testing and maintenance effort.

Experience even faster and more precise measurement results – in under 10 seconds, independent of chamber volume.

### ADVANTAGES AT A GLANCE

- ✓ **Shorter Test Cycles.** The advanced booster pump accelerates response time and removes helium quickly — ideal for large components and high-throughput lines
- ✓ **Fast Evacuation & Low Maintenance.** A durable backing pump delivers very short pump-down times, withstands moisture and reduces service needs, supporting higher equipment availability
- ✓ **High Stability in Tough Conditions.** The robust vacuum system tolerates accidental venting and keeps processes stable with minimal maintenance



### EXCLUSIVE INFICON TECHNOLOGIES

- ✓ **I·CAL – Clean, Reliable Signals.** Minimizes noise while preserving even tiny leak peaks for confident pass/fail decisions
- ✓ **I·ZERO 2.0 – Rapid Background Stabilization.** Achieves a low helium background quickly, ensuring accurate small-leak detection from the start
- ✓ **MASSIVE MODE – Faster Troubleshooting.** Enables testing at atmospheric pressure and identifies large leaks immediately
- ✓ **I·CHECK – Stable Measurement Conditions.** Monitors ambient helium to maintain consistent and repeatable test results
- ✓ **I·RISE – Faster test time and improved accuracy.** Provides in-device rate-of-rise measurement combined with helium spraying method

### 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 extremely small helium quantities with industry-leading sensitivity and a minimum detectable leak rate of  $5 \times 10^{-12}$  mbar·l/s

### LARGE CONNECTING FLANGE DN63

With a DN63 ISO-K connection, the UL6000 Fab series delivers over twice the throughput of a DN40 hose, speeding up test results. A DN40 ISO-KF adapter can also be used, while the helium pumping speed of 30 l/s remains unmatched.

### SLIM DESIGN AND PRACTICAL STORAGE

- Slim design for easy transport and maneuvering, even in tight spaces
- More room around the equipment for maintenance work
- Built-in compartment stores vacuum parts and accessories, keeping everything on hand
- Lockable, durable casters ensure safe and stable operation
- Helium bottle holder allows easy attachment to the leak tester
- Sniffer line SL3000 available in different lengths for improved operator mobility



### SMART-SPRAY HELIUM SPRAY GUN

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







### RELIABLE HANDLING WITH MODERN CONTROL UNIT

- User-friendly control unit with intuitive menu navigation and practical help feature for fast, easy operation
- Swiveling, high-resolution 7-inch LED touch display provides full control and overview of all measurement results from any position

### ALWAYS THE RIGHT INTERFACE

The various interfaces on the mobile UL6000 Fab series leak testers allow data to be exported easily at any time. Just choose between the Wi-Fi, LAN or USB ports.

### TWO INNOVATIVE PUMPS FOR GREATER SPEED

- Booster pump with a capacity of over 36 l/s, delivering the highest helium pumping speed on the market for very fast response times, even for large volumes
- Roots pump with a maximum air pumping speed of 36 m<sup>3</sup>/h, ensuring shorter evacuation times

### 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. With a resolution of 240 × 320 pixels, all relevant measurements are always easy to view.



#### Flexible web app

The UL6000 Fab series of mobile leak testers can be controlled via a web app, for easy, platform-independent operation from any device. Just connect to Wi-Fi and open the web app to get started.



WEB APP

#### HDMI

The HDMI interface allows you to connect an external touch display and gives you the freedom to scale the screen size to your workplace—so measurements stay clearly visible.



# Your Specialist for the Most Reliable Leak Testing

With its high-precision measuring devices such as the UL1000 Fab, INFICON has been a leader in leak testing for many years. The UL3000 Fab (ULTRA) then set new standards.

With the innovative UL6000 Fab product series, we have taken the next step, defining a benchmark for quickly detecting leaks. This ensures significantly shorter downtimes and the highest productivity of our customers.

## 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.

## 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



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Premium Quality  
made in Germany

## UL6000 FAB SERIES HELIUM LEAK DETECTOR

| SPECIFICATIONS                                       | UL6000 FAB                                     | UL6000 FAB PLUS |
|------------------------------------------------------|------------------------------------------------|-----------------|
| Min. detectable leak rate for helium (vacuum method) | <5·10 <sup>-12</sup> mbar·L/s                  |                 |
| Min. detectable leak rate for helium (sniffer mode)  | <5·10 <sup>-8</sup> 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 <sub>2</sub> , <sup>3</sup> He, He) |                 |
| Supply voltage                                       | 100 to 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. | ACCESSORIES                                         | CAT. NO. |
| UL6000 Fab (100 to 230 V 50/60 Hz)                                                  | 550-520  | SL3000-3, sniffer line 3 m length                   | 525-001  |
| UL6000 Fab PLUS (100 to 230 V 50/60 Hz)                                             | 550-530  | SL3000-5, sniffer line 5 m length                   | 525-002  |
| <b>ACCESSORIES</b>                                                                  |          | SL3000-10, sniffer line 10 m length                 | 525-003  |
| SMART-Spray helium spray gun set                                                    | 551-050  | Bracket for SL3000                                  | 551-203  |
| I·BOOST software license                                                            | 551-600  | SL200, Sniffer line + el. extension for UL3000/6000 | 551-210  |
| SPRAY-Check TL8                                                                     | 551-031  | Helium bottle holder                                | 551-201  |
| DN63-ISO K Connection Kit (1x hose 1 m, 1x 90° elbow, 2x center ring, 2x clamp set) | 551-225  | I/O 1000 Module                                     | 560-310  |
| DN63-ISO K/DN50 ISO KF Bellow 1 m                                                   | 551-226  | BM1000 Profibus module                              | 560-315  |
| DN63-ISO K/DN40 ISO KF Bellow 1 m                                                   | 551-227  | BM1000 PROFINET IO module                           | 560-316  |
| Remote Control RC1000WL, wireless, incl. wireless transmitter                       | 551-015  | BM1000 DeviceNet module                             | 560-317  |
| Remote Control RC1000C, wired, with 4 m coiled cable                                | 551-010  | BM1000 Ethernet/IP module                           | 560-318  |
| Vacuum Hose Holder for DN25 or DN40                                                 | 551-202  | Data Cable 0.5 m for IO1000, BM1000                 | 560-334  |
| Vacuum Hose Holder DN63                                                             | 551-207  | Data Cable 2 m                                      | 560-332  |
|                                                                                     |          | Data Cable 5 m                                      | 560-335  |
|                                                                                     |          | Data Cable 10 m                                     | 560-340  |



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