edwardsvacuum.com

# ELD600 Helium Leak Detector



# ELD600 Leak Detector

## First fully dry helium leak detector range from Edwards

The ELD600 marks a significant step forward in helium leak detection.

By combining portable operator control, dry scroll pump technology and proven Edwards vacuum expertise, it delivers the sensitivity manufacturers need with the efficiency modern production environments demand.




- Proven Edwards performance
- Oil free operation
- Faster recovery
- Portable touchscreen monitor

### Faster Recovery for Higher Throughput

Maintaining productivity is critical in leak testing applications. The ELD600 is designed to rapidly recover after helium exposure, helping restore peak sensitivity quickly and minimise delays between tests.

The result is faster testing cycles, higher throughput and greater confidence in measurement accuracy.

### The sustainable choice

The elimination for pump oil reduces waste, avoid oil disposal requirements, and lower ongoing maintenance demands.

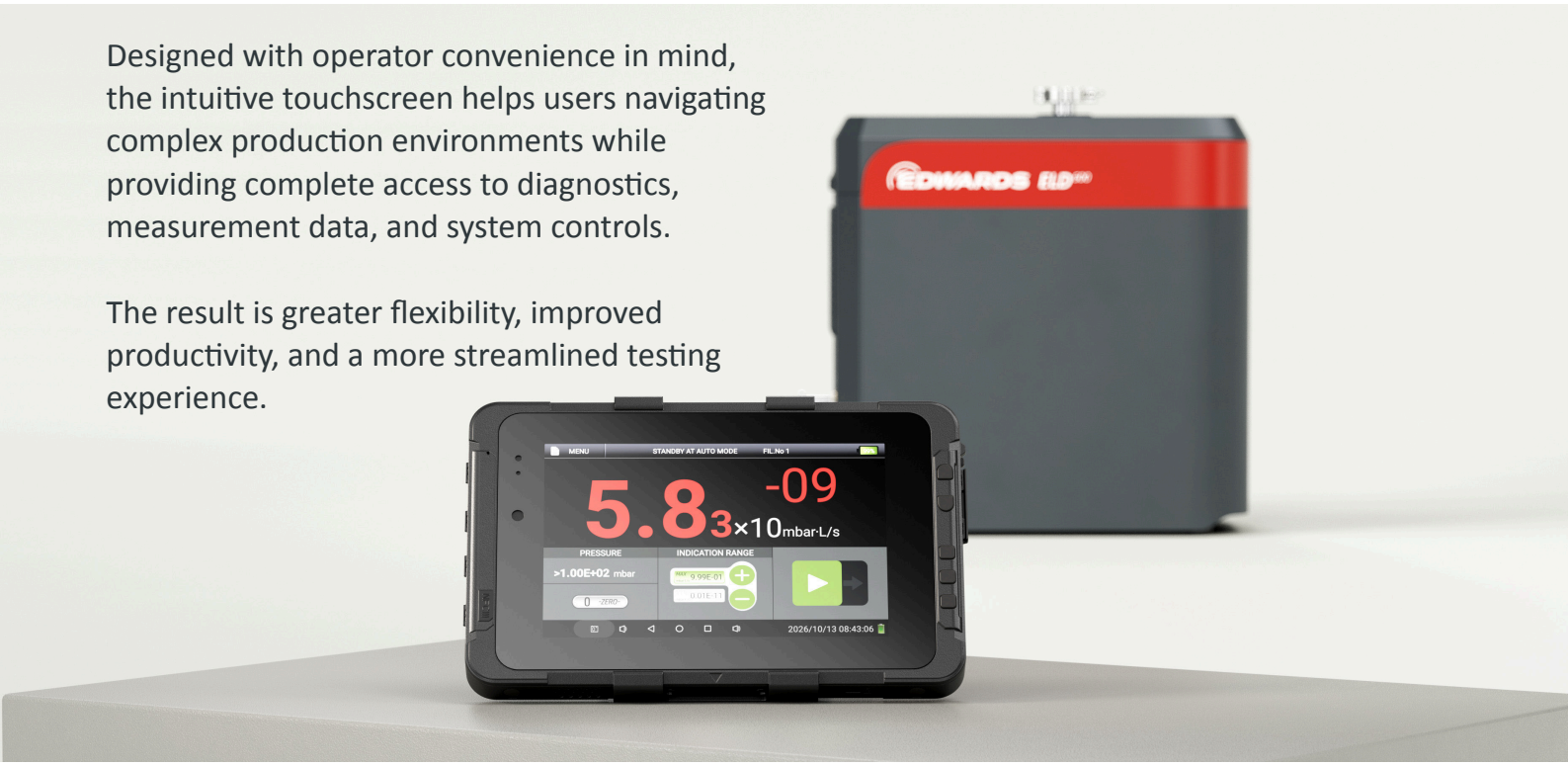
The ELD600 dry and ELD600 flex utilize dry vacuum technology, eliminating the need for routine oil changes and disposal associated with oil-sealed systems. This reduces consumable use, lowers maintenance requirements, and decreases waste generated during service activities. The result is reliable, high-performance leak detection with increased uptime and a reduced maintenance burden.

# Take Control With You

## The ELD600’s detachable touchscreen puts control directly in the operator’s hands.

Designed with operator convenience in mind, the intuitive touchscreen helps users navigating complex production environments while providing complete access to diagnostics, measurement data, and system controls.

The result is greater flexibility, improved productivity, and a more streamlined testing experience.




### Benefits for Your Operation

- Detachable portable touchscreen for complete freedom of movement
- No separate remote control required, reducing equipment clutter and cost
- Improved accessibility when testing large or difficult-to-reach systems
- Real-time visibility of measurements and system status
- Faster, more efficient operation with controls always within reach
- User-friendly interface designed to simplify leak detection tasks
- Multilingual support including English, Japanese, German, Simplified Chinese, Traditional Chinese, Korean, and Spanish, making it ideal for global manufacturing environments



# Proven Edwards Expertise at its core

## Scroll Pump Technology for Improved Performance

At the heart of ELD600 dry is the Edwards mXDS3 dry scroll pump, replacing traditional diaphragm backing pump technology.

This advanced dry pumping solution provides improved vacuum performance and faster recovery characteristics, supporting efficient leak testing in demanding production environments.



## Powered by nEXT85 Technology

The ELD600 incorporates the proven Edwards nEXT85 turbomolecular pump, a key contributor to the system's pumping speed, sensitivity and overall leak detection performance.

Optimised specifically for helium leak detection applications, the nEXT85 enables rapid response and accurate measurements while delivering the reliability expected from Edwards vacuum solutions.



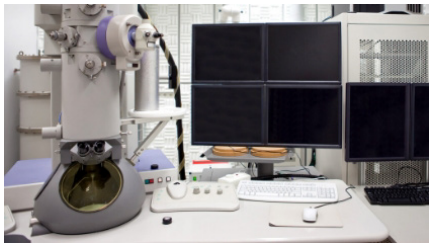
### Benefits of mXDS3 dry scroll backing pump

- Dry scroll pump technology
- Improved helium handling
- Quick high-sensitivity measurement
- Faster test preparation
- Enhanced productivity
- Proven Edwards reliability

### Benefits of nEXT85 turbomolecular pump

- High pumping speed
- Excellent leak detection sensitivity
- Optimised system performance
- Proven Edwards innovation
- Trusted vacuum technology

# Applications



## Analytical Instruments

- Electron microscopy
- Leak detection
- Mass spectrometry
- Surface analysis



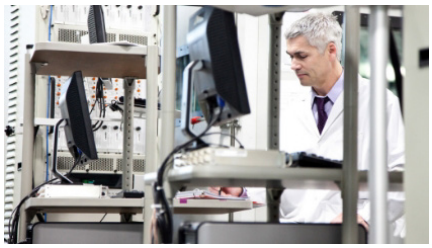
## Research and development

- Space simulation
- Cryogenic research
- Nanotechnology
- Coating systems
- Quantum Computing



## Semiconductor

- Load lock
- Transfer
- Metrology
- Lithography
- PVD (physical vapour deposition)
- Plasma etching
- Implant source
- CVD (chemical vapour deposition)
- Flat panel display
- LED



## Industrial

- Industrial leak detection
- Electron beam welding
- Lamp and tube manufacturing
- Glass coating
- Brake line and air conditioning
- Refrigeration system manufacturers
- Heat treatment
- Power
- Vacuum furnaces



## High energy physics

- Beam lines
- Accelerators
- Fusion
- Laser evacuation

# Technical data

| Parameter | Unit | ELD600 dry | ELD600 flex |
|---|---|---|---|
| Minimum detectable helium leak rate | | | |
| Vacuum mode ULTRA | mbar x l/s | $5 \times 10^{-12}$ | |
| Vacuum mode FINE | mbar x l/s | $1 \times 10^{-10}$ | |
| Vacuum mode GROSS | mbar x l/s | $1 \times 10^{-7}$ | |
| Max. inlet pressure | min | ≤ 2.5 min (without calibration) ,≤ 5 min (with calibration) | |
| ULTRA | mbar | 0.02 | |
| FINE | mbar | 1.2 | |
| GROSS | mbar | 12 | |
| Pumping speed during the evacuation process | m³/h | 3.0 | - |
| Backing pump type | | scroll pump | - |
| Helium pumping speed in ULTRA mode | l/s | 4.0 | Not equipped |
| Response time | s | < 1 | 3.5 |
| Run-up time (after starting) | s | 150 | |
| Mass spectrometer | | 90° magnetic sector field 2 filaments; iridium / yttrium oxide | |
| Ion source | kg | 32 | 25 |
| Detectable masses | amu | 2, 3 and 4 | 280 |
| Inlet port | DN | 25 ISO-KF | |
| Dimensions (W x H x D) | mm | 480 x 506 x 320 | |
| Weight | kg | 32 | 25 |
| Available languages | | English, Japanese, Korean, Simple Chinese, Traditional Chinese, German, Spanish | |

# Ordering information

| | Part number |
|---|---|
| ELD600 dry 230V | D13520913 |
| ELD600 dry 115V | D13520914 |
| ELD600 dry 100V | D13520916 |
| ELD600 flex | D13530010 |



edwardsvacuum.com

Publication Number: 3601 1046 01
© Edwards Limited 2026. All rights reserved
Edwards and the Edwards logo are trademarks of Edwards Limited

Whilst we make every effort to ensure that we accurately describe our products and services, we give no guarantee as to the accuracy or completeness of any information provided in this brochure.

Edwards Ltd registered in England and Wales No. 6124750, registered Office: Innovation Drive, Burgess Hill, West Sussex RH15 9TW

**Part of the Atlas Copco Group**