

Leak Detection Solution Provider

NOY

Part of Atlas Copco Group

Anhui NOY Technology Co.,LTD



Catalogue

1. Company Profile 03

2. Company Awards 05

3. Customer Cases 09

4. Application 11

5. Product Introduction

- NLD200 Module Helium Leak Detector 13
- NHJ400M Series Helium Leak Detector 14
- NHJ480 Series Helium Leak Detector 15
- NHJ600 Series Helium Leak Detector 17
- NHJ800D Series Helium Leak Detector 19
- NHJ400 Series Helium Leak Detector (design for new energy industry) 21
- NFJ150 Heavy Fluorine Oil Leak Detector 23
- NFY260 Pressure Equipment 24
- NJT01 Helium Leak Detection System 25

6. Others

- Accessories 27
- Methods 30

01

Company Profile

Tagline:
Precision beyond boundaries. Innovative leak detection.

Anhui NOY Technology Co., Ltd. is an innovative Chinese company specializing in the development and manufacture of helium mass spectrometer leak detectors and customized helium leak detection systems. Using helium tracer technology and high-precision mass analysis, our products enable fast and accurate detection of very small leaks.

NOY solutions are widely used in applications with demanding leak-tightness requirements, including batteries, liquid cooling systems for AI servers, semiconductors, automotive components, power equipment, refrigeration and general vacuum applications. We provide leak detection solutions covering manufacturing processes through final quality inspection.

As of April 2026, NOY's global installed base had exceeded 8,000 units. Our customers include leading companies and publicly listed enterprises across multiple industries.

In 2024, NOY joined the Atlas Copco Group. By drawing on the Group's global R&D, supply chain and service networks, NOY continues to strengthen its products and international capabilities and provide efficient, reliable leak detection solutions to manufacturers worldwide.


NOY
诺益科技

02

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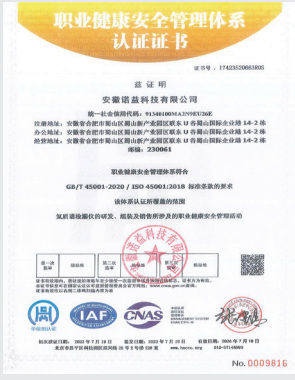
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发明专利证书


实用新型专利证书


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03

Customer Cases



TO packaging detection



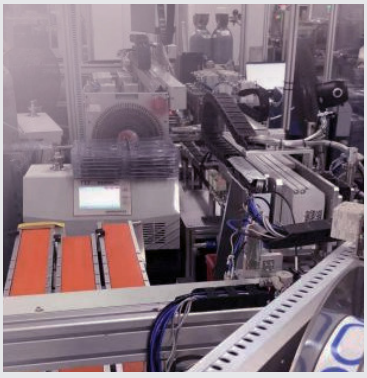
High voltage DC
relay detection



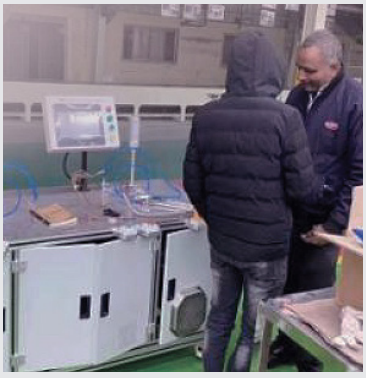
Valve detection



Heat exchanger
detection



Battery cell detection



Air conditioning pipe
fittings detection



Accelerator detection

Customer Cases



Refrigerator condenser detection



Pressure vessel detection



Automated detection



Coating machine detection



Square cover plate detection



Science & Research detection



Electrical Insulation Components Detection

04

Application

Battery Industry	Battery covers, battery cells, water-cooling plates, battery packs, traction and consumer batteries, and hydrogen energy applications.
AI Server Liquid Cooling Systems	Cold plates, coolant distribution manifolds, piping, quick disconnect couplings, pumps and valves, heat exchangers, and coolant distribution units (CDUs).
Semiconductor	Wafer manufacturing equipment, chip packaging equipment, packaged chips and connectors.
Automotive	Powertrain, fuel, braking, steering, transmission and exhaust systems.
Power	Bushings, fuse tubes, surge arresters, density gauges and dynamic seals.
Refrigeration	Evaporators, condensers, air-conditioning piping, compressors, four-way valves and heat pumps.
General Vacuum	Pumps and valves, castings, vacuum tubes, vacuum furnaces, vacuum coating equipment, accelerators and bellows.
Others	Medical equipment, aerospace, research institutes and photovoltaics.



05

Product Introduction



* Please note that all pictures shown on our materials are for illustration purpose only and actual products may vary due to product enhancement or change.

NLD200 Modular Helium Leak Detector



Introduction

NLD 200 Modular Helium Mass Spectrometer Leak Detector is a modular type leak detector, small volume can be flexible with the vacuum system, a variety of air combination, can be applied to a variety of detection requirements.
It has the characteristics of short start time, fast leak detection speed, high sensitivity, strong ability to clear helium and no pollutant removal.
Compact structural design to facilitate integration into leak detection systems according to customer needs.
Double iridium ion source, strong antioxidant capacity and long service life



Technical Parameters	
Minimum Leak Detection Rate	3×10^{-13} Pa·m³/s
Helium Pumping Speed	2.5 L/s
Inlet Pressure	≤2000 Pa
Start-up Time	≤90 s
Response Time	≤0.5 s
Detectable Gas	^4He,^3He,H_2
Communication	RS232,RS485,USB
Calibration	External Automatic / External Manual
Language	Chinese / English / Korean / Japanese / Thai / Hindi / Malay / Italian / Hungarian
Interface Dimensions	DN KF25/DN KF16
Power / Voltage	DC24V,350W
Net Weight	22 kg
Dimensions	(435×270×249)mm
Work Environment	Temperature (5~40) °C; Humidity: ≤80% RH
Backing Pump	/
Maximum Working Current	14.6A

Configuration table			
NLD200	Host leak detection module	×1	
	Display module	×1	
	Power module	×1	
	Data line	×2	Customizable
	Standard leakage hole	×1	Optional

NHJ400M Helium Leak Detector

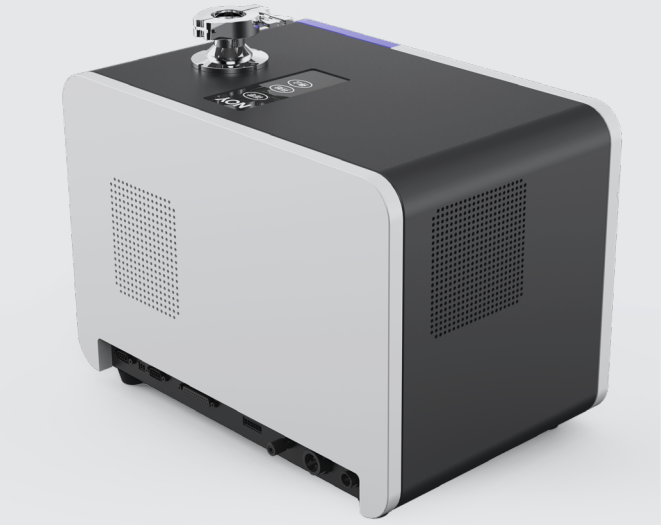


Introduction

NHJ400M Helium Mass Spectrometer Leak Detector is a modular type leak detector, small volume can be flexible with the vacuum system, a variety of air combination, can be applied to a variety of detection requirements.
Compact structural design to facilitate integration into leak detection systems according to customer needs.

Mass spectrometry room: 180 degree non-uniform magnetic field U-shaped magnet design, good signal stability, and strong resistance to strong magnetic interference.

Technical Parameters	
Min. Detectable Leak Rate of Vacuum Mode	3×10^{-13} Pa·m³/s
Vacuum Leakage Rate Display Range	(1×10^{-2} ~ 1×10^{-13})Pa·m³/s
Min. Detectable Leak Rate of Sniffer Mode	5×10^{-9} Pa·m³/s
Range of Leakage Rate of Sniffer	(1×10-2 ~1×10-⁹)Pa·m³/s (zero)
Helium Pumping Speed	2.5 L/s
Detectable Gas	^4He,^3He,H_2
Start-up Time	≤90 s
Response Time	≤0.5 s
Inlet Pressure	≤2000 Pa
Mainframe Power/ Voltage	DC24V,350W
Work Environment	Temperature: (5~40) °C
Language	Chinese / English / Korean/ Japanese / Thai / Hindi / Malay / Italian
Dimensions	(420×275×350)mm
Net Weight	26 kg
Backing Pump	/
Display units	Pa·m³/s,mbar·l/s, atm·cc/s, Torr·l/s, ppm





NHJ480 Helium Leak Detector

Introduction

The NHJ480 Helium Leak Detector is a fully automatic mobile helium mass spectrometer leak detector with a silent wheel design, suitable for many demanding industries.

Utilizing helium mass spectrometry and reverse diffusion principles, using a 180 ° non-uniform magnetic field and fully automatic control technology, automatic helium peak scanning, automatic calibration, and automatic range switching have been achieved.

It has the characteristics of short startup time, fast calculation speed, high detection sensitivity, and strong anti-interference ability.

Performance characteristics

Unique gas path design, can avoid dust into the instrument interior.Multi-mode function input, output, easy to connect a variety of automation equipment.

Double iridium ion source, strong antioxidant capacity

and long service life. The machine is effectively separated from the circuit, avoiding the interference of temperature, electromagnetic field and so on, which makes the leak detector run more stable and reliable.

NOY APP: use mobile phone APP remote over-control leak detector to start, stop, zero. Real-time monitoring leak detector shows leakage rate.



Technical Parameters	
Min. Detectable Leak Rate of Vacuum Mode	3×10^{-13} Pa·m³/s
Vacuum leakage rate display range	1×10^{-2} ~ 1×10^{-13} Pa·m³/s
Min. Detectable Leak Rate of Sniffer Mode	5×10^{-9} Pa·m³/s
Range of Leakage Rate of Sniffer	(1×10^{-2} ~1×10^{-9})Pa·m³/s (zero)
Helium Pumping Speed	2.5 L/s
Detectable Gas	^4He,^3He,H_2
Backing Pump Speed	16 m³/h
Start-up Time	≤90 s
Response Time	≤0.5 s
Inlet Pressure	≤2000 Pa
Mainframe Power/ Voltage	single-phase 220 V ±10%, 50 Hz, 1000W
Work Environment	Temperature: (5~40) °C; Humidity: ≤80% RH
Language	Chinese / English / Korean/ Japanese / Thai / Hindi / Malay / Italian
Dimensions	(620×370×1027)mm
Net Weight	110 kg
Display Units	Pa·m³/s,mbar·l/s, atm·cc/s, Torr·l/s, ppm

Configuration table	
Vacuum pump	Oil-Sealed Rotary Vane Pump
Molecular pump	Genuine Import
Vacuum valve	Original imported leak detector, specially customized
Display screen	●
WIFI	○
Remote controler	○
Suction gun	○
Big leak detection	●
Gross leakage protection	●
External leak	●
Built-in leak	○
Data saving	●
Auto-zero	●
Display interface	Curve chart, histogram, numerical display
I/O interfaces	RS232, RS485, USB External control input/output, analog output interface

● Standard Configuration ○ Optional



NHJ600(D) Helium Leak Detector

Introduction

NHJ600(D) Helium Leak Detector is a fully automatic portable helium mass spectrum leak detector, small volume, suitable for precision, fast and portable vacuum industry and research institutes.

Using helium mass spectrometry and inverse diffusion principle, using 180° inhomogeneous magnetic field and automatic control technology. Automatic helium peak scanning, automatic calibration and automatic range switching are realized.

It has the characteristics of portable, fast start, fast operation, high sensitivity, accurate and rapid.

Performance characteristics

Stripping metal button, one-click automatic emptying.

Hand-held remote control unit, up to 150 meters remote detection.

Ram wifi connection, NOY tech app, remote control.

Automatic zero-adjusting, automatic range switching.

The custom software of the leak detector can be compiled according to the customer's request.



Technical Parameters	
Min. Detectable Leak Rate of Vacuum Mode	3×10^{-13} Pa·m³/s
Vacuum leakage rate display range	1×10^{-2} ~ 1×10^{-13} Pa·m³/s
Min. Detectable Leak Rate of Sniffer Mode	5×10^{-9} Pa·m³/s
Range of Leakage Rate of Sniffer	(1×10^{-2} ~1×10^{-9})Pa·m³/s (zero)
Helium Pumping Speed	2.5 L/s
Detectable Gas	^4He,^3He,H_2
Backing Pump Speed	2.5 m³/h
* Dry Backing Pump Speed (optional)	3 m³/h
Start-up Time	≤90 s
Response Time	≤0.5 s
Inlet Pressure	≤2000 Pa
Mainframe Power/ Voltage	single-phase 220 V ±10%, 50 Hz, 650W
Work Environment	Temperature (5~40) °C; Humidity: ≤80% RH
Language	Chinese / English / Korean/ Japanese / Thai / Hindi / Malay / Italian
Dimensions	(620x370x480)mm
Net Weight	47 kg(NHJ600); 44 kg(NHJ600D)

Configuration table	
Vacuum pump	Genuine Import
Molecular pump	Genuine Import
Vacuum valve	Original imported leak detector, specially customized
Dry Backing Pump	○
Display screen	●
WIFI	○
Remote controler	○
Sniffer	○
Big leak detection	●
Gross leakage protection	●
External leak	●
Built-in leak	○
Data saving	●
Auto-zero	●
Display interface	Curve chart, histogram, numerical display
I/O interfaces	RRS232, RS485, USB External control input/output,analog output interface

● Standard Configuration ○ Optional



NHJ800D(L) Helium Leak Detector

Introduction

NHJ800D(L) Helium Leak Detector: A silent, portable, eco-friendly helium mass spectrometer featuring oil-free compressed air exhaust with no oil mist pollution.

Utilizes helium mass spectrometry and inverse diffusion principles, incorporating a 180° non-uniform magnetic field and full automation technology.

Features short startup time, fast processing speed, high sensitivity, reliable performance, and no pollutant emissions.

Performance characteristics

Gross leak Detection: Alarms automatically if preset pressure is not reached during evacuation.

Multiple Units & Data Export: Select measurement units, view real-time data, export directly to Excel.

Rotatable 7" Touchscreen: Adjust orientation comfortably for optimal viewing.

Gross leak Protection: Safeguards ion source from oxidation pump from atmospheric exposure.



Technical Parameters	
Min. Detectable Leak Rate of Vacuum Mode	3×10^{-13} Pa·m³/s
Vacuum leakage rate display range	1×10^{-2} ~ 1×10^{-13} Pa·m³/s
Min. Detectable Leak Rate of Sniffer Mode	5×10^{-9} Pa·m³/s
Range of Leakage Rate of Sniffer	(1×10^{-2} ~1×10^{-9})Pa·m³/s (zero)
Helium Pumping Speed	2.5 L/s
Detectable Gas	^4He,^3He,H_2
Backing Pump Speed	15 m³/h; Optional: NHJ800DL, 35 m³/h
Start-up Time	≤90 s
Response Time	≤0.5 s
Inlet Pressure	≤2000 Pa
Mainframe Power/ Voltage	NHJ800D: 1000 W; NHJ800DL: 1300 W; 100-120V , 60Hz 200-240V , 50Hz
Work Environment	Temperature (5~40)°C Humidity≤ 80%RH
Language	Chinese / English / Korean/ Japanese / Thai / Hindi / Malay / Italian
Dimensions	(620x370x1027)mm
Net Weight	94 kg(NHJ800D); 116 kg(NHJ800DL)

Configuration table	
Vacuum pump	Original imported dry pump
Molecular pump	Genuine Import
Vacuum valve	Original imported leak detector, specially customized
Display screen	●
WIFI	○
Cart	●
Remote controler	○
Sniffer	○
Big leak detection	●
Gross leakage protection	●
External leak	●
Built-in leak	○
Data saving	●
Auto-zero	●
Display interface	Curve chart, histogram, numerical display
I/O interfaces	RS232, RS485, USB External control input/output, analog output interface

● Standard Configuration ○ Optional



NHJ400 Helium Leak Detector

Designed for the New Energy Industry

Introduction

NHJ400 Helium Leak Detector adopts a split design featuring a mass spectrometer structure and a backing pump,simple structure, superior performance, suitable for many industries. Using the principle of helium mass spectrum and inverse diffusion, using 180°non-uniform magnetic field and automatic control technology, automatic helium peak scanning, automatic zero adjustment and automatic range switching are realized, which have the characteristics of high detection speed, high detection sensitivity and strong anti-interference ability.

Gross leakage detection function: can be through the preset pressure, empty time, cannot reach the preset value, leak detector automatic alarm prompt.

A variety of units of measurement selection, detection data real-time update, direct output to generate Excel tables. Multiple gross leakage protection modes to adequately protect ionic sources from being oxidized and exposed to atmosphere when molecular pumps are not impacted.

Performance characteristics

The unique gas path design improves the pumping speed of helium, shortens the cleaning time of helium background, and effectively prevents helium contamination.

Leak detection port equipped with: custom precision filter device, can effectively avoid debris particles or copper powder into the instrument inside. Multi-mode function input, output, easy to connect a variety of automation equipment. The machine is effectively separated from the circuit, avoiding the interference of temperature, electromagnetic field and so on, which makes the leak detector run more stable and reliable. The minimum leak detection rate is low, the sensitivity is high.



Technical Parameters	
Min. Detectable Leak Rate of Vacuum Mode	3×10^{-13} Pa·m³/s
Vacuum leakage rate display range	1×10^{-2} ~ 1×10^{-13} Pa·m³/s
Min. Detectable Leak Rate of Sniffer Mode	5×10^{-9} Pa·m³/s
Range of Leakage Rate of Sniffer	(1×10^{-2} ~1×10^{-9})Pa·m³/s (zero)
Helium Pumping Speed	2.5 L/s
Detectable Gas	^4He,^3He,H_2
Backing Pump Speed	16 m³/h
Start-up Time	≤90 s
Response Time	≤0.5 s
Inlet Pressure	≤2000 Pa
Mainframe Power/ Voltage	single-phase 220 V ±10%, 50 Hz, 1000 W
Work Environment	Temperature(5~40) °C Humidity: ≤ 80%
Language	Chinese / English / Korean/ Japanese / Thai / Hindi / Malay / Italian
Dimensions	(650×390×955)mm
Net Weight	103 kg
Display Units	Pa·m³/s,mbar·l/s, atm·cc/s, Torr·l/s, ppm

Configuration table	
Vacuum pump	Oil-Sealed Rotary Vane Pump
Molecular pump	Genuine Import
Vacuum valve	Original imported leak detector, specially customized
Display screen	●
Cart	●
Remote controler	○
Sniffer	○
Big leak detection	●
Gross leakage protection	●
External leak	●
Built-in leak	○
Data saving	●
I/O interfaces	RS232, RS485, USB External control input/output, analog output interface

● Standard Configuration ○ Optional

NFJ150 Gross Leak Tester



Performance description

NFJ150 Gross Leak Tester is suitable for coarse leak detection of discrete electronic devices, semiconductor devices and microcircuit packages with inner cavity. The tank is treated as a dark, non-reflective black background, the left and right lighting into direct parallel light, the observation port with a magnifying glass to enlarge the micro bubbles.

- Accurate temperature control controller, can accurately set the required temperature
- Concave switch, power supply, increase the safety of operation.
- The high-permeable observation window is equipped with a movable magnifying glass to clearly determine the location of each leak.
- Mobile upper cover, by its own weight, hinder the distance from high temperature.

Technical parameters	
Power	220V/500W
Heating temperature	125°C±5°C
Heating rate	2°C/min
Tank volume	6L
Size	(530×270×375)mm
Net Weight	22 kg



NFY260 Pressurization System



Introduction

The NFY260 uses a dual-tank design with the fluorocarbon fluid reservoir below the pressure tanks. A touchscreen displays pressure and fluid-level information. The large-capacity pressure tanks support efficient processing. Front-mounted buttons enable one-touch automatic operation. The loading platform makes workpiece handling easy, while casters allow the equipment to be moved into position. The display shows each step of the process.

- Large-capacity dual tanks.
- Loading platform.
- Touchscreen display
- Electrically controlled valves.
- Used with gross and fine leak testing.



Technical parameters	
Power	220V/1000W
Withstand voltage	≤0.8Mpa
Vacuum pressure	≤50Pa
Tank volume	12 L×2
Size	(1080×720×1022)mm
Net Weight	200 kg



NJT01 Custom Helium Leak Detection System

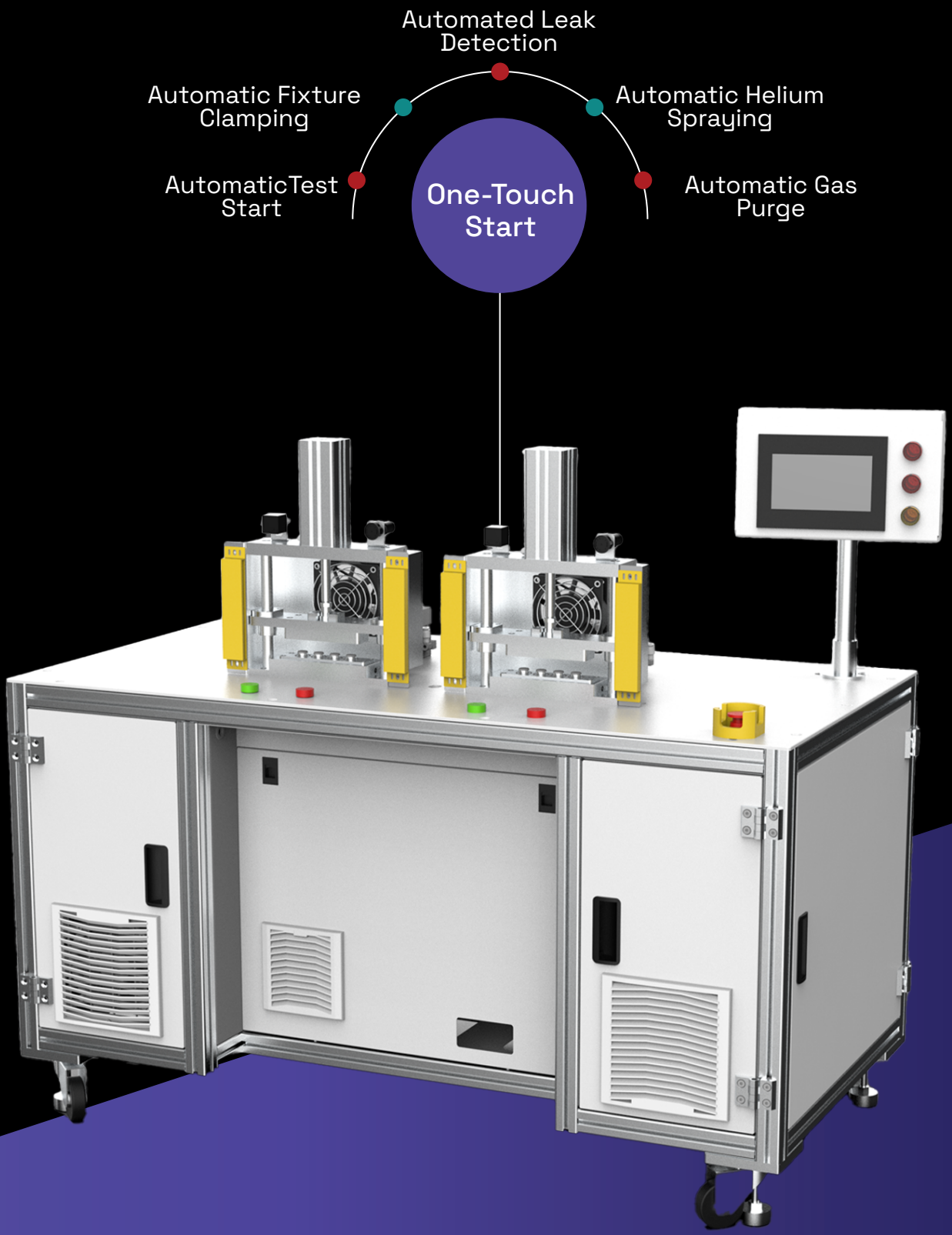
Introduction

Helium mass spectrometry leak detection system can be customized according to customer requirements, can automatically complete the workpiece plugging and leak detection process. It has the characteristics of simple operation, convenient use and high working efficiency.

It is widely used in Applications include new energy, AI server liquid cooling, refrigeration, precision machining, high-vacuum equipment and electrical applications.



NJT01 Custom Helium Leak Detection System



06

Others

01. Accessories

02. Methods



01

Accessories



Handheld Remote Controller

Remote control of the leak detector
start, stop, zero.
Show the leak rate of the leak detector, can adjust the volume of unqualified alarm

Helium Bombing Chamber/ Test Chamber



Accessories required for back pressure leak testing.

Bombing Chamber (left image) is the Chamber used to introduce helium gas into the test piece.

Test Chamber(right image) with a leak detector to inspect the test piece.

Custom sizes are available.



Sniffer Probe

Positive pressure method leak detection,

with the leak detector leak detection accessories.

Flexible pipeline design to facilitate leak detection.

Equipped with precision filtration to prevent dust clogging Sniffer.

When using a Sniffer, use standard helium to calibrate the leak detector .



Reference Leak

Class 10^{-8} mbar·L/s helium reference leaks.

Calibrated by National Metrology Institutes with certification issued.

Leak detector verification complies with calibration protocols.

Leak standards are classified as: integral type or portable units.

Custom Reference Leak

Leaks with customizable leak rates. Calibrated by national Sstandard metrology institutes with internationally recognized certificates. reference standards for Leak detector calibration. external reference leaks.



02

Methods

Vacuum Spray Method (Helium Spray)

1. Evacuation: Connect the test object to the leak detector and evacuate its interior.
2. Helium Spraying: Spray helium over suspected leak locations on the exterior with a helium spray gun.
3. Detection: If a leak is present, helium enters the object and the leak detector reading rises.

Result: The leak location and leak rate can be identified.

Typical Application: Objects that can be evacuated internally when the leak location must be identified.



Pressure Probe Method (Sniffer Probe Testing)

Sniffer Probe Testing (Positive-Pressure Method) Fill the test object with helium at a pressure above atmospheric pressure and hold. Move the sniffer probe slowly over suspected leak locations. Escaping helium is drawn into the probe and detected.

Result: The leak location is identified.



Helium Hood Method (Vacuum Accumulation)

1. Evacuation: Connect the test object to the leak detector and evacuate its interior.
2. Helium filling: Enclose the object in a hood, evacuate the hood and fill it with helium.
3. Detection: Helium enters the object through any leaks and is detected by the leak detector.

Result: The total leak rate is measured.

Typical application: Large objects that can be evacuated internally but are difficult to pressurize.



Bombing Testing Method (Backpressure)

1.Pressurization with Helium (Helium Bombing)

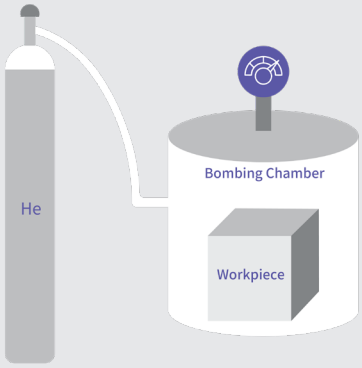
Place the test piece into the Bombing Chamber, evacuate to <100 Pa, then fill with pure helium gas (purity ≥99.99%, per GB4844-1011) with a filling duration >20 seconds. Maintain at specified pressure for the required dwell time to allow helium permeation through leaks into internal cavities.

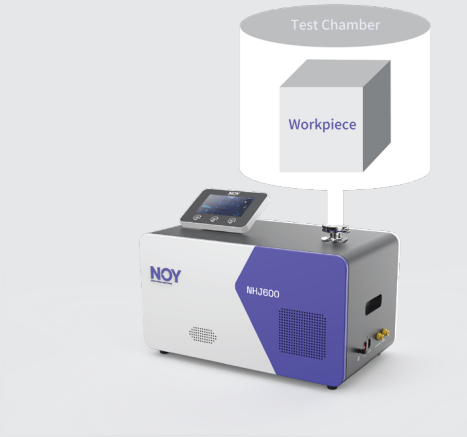
2.Helium Purging (Decontamination)

Immediately flush surfaces for ≥ 5 minutes with dry nitrogen/air to thoroughly remove residual helium from external surfaces, crevices, and threaded connections – preventing false positives during detection.

3.Leak Detection (Testing)

Transfer the purged test object to a vacuum chamber directly connected to a helium mass spectrometer leak detector. Evacuate the chamber and monitor for the maximum leakage rate over the specified test duration (indicating internal helium leakage).





Helium Spray Leak Detection Process

Helium spray detection standard:

QJ3123-2000“Helium Mass Spectrometry Vacuum Leak Detection Method” GB/T 15823-2009“Helium Leakage Inspection”

1. After assembling the workpiece, use the corresponding fixture to connect it to the leak detector.
2. After confirming the connection is OK, press the “Start” button on the leak detector to enter the vacuum leak detection state.
3. Observe the background value displayed on the leak detector screen to reach 4.0×10^{-10}Pa•m³/s.
4. Use 99.99% or 99.999% helium gas to perform helium injection detection on suspected leakage points on the workpiece.
5. For each suspicious leak point, spray helium for 1 second and observe the background value of the leak detector for 3-5 seconds
6. Follow step 5 to sequentially detect other suspicious leakage points.
7. The sequence of helium injection detection is from top to bottom.
8. After the inspection is completed, press the “stop” button on the leak detector first, and wait for the standby screen to appear on the detector display before disassembling the workpiece.

Leak Detection Process using the sniffer method

Detection standards for sniffer method:

QJ3089-1999 “Helium Mass Spectrometry Positive Pressure Leak Detection Method”
QJ2862-1996 “Helium Mass Spectrometry Leak Detection Test Method for Pressure Vessel Weld Seam Sniffer Cover Box 1

1. After assembling the workpiece, use the corresponding fixture to inject a certain pressure of 99.99% or 99.999% helium gas into the workpiece.
2. After confirming OK, connect the sniffer to the leak detection port of the leak detector. Press the “Start” button on the leak detector to enter the vacuum leak detection state.
3. Observe that the background value displayed on the leak detector screen reaches around 1.0×10^{-7} Pa • m³/s Relatively stable state.
4. Use a sniffer to perform helium detection on suspected leakage points on the workpiece. Use a sniffer from bottom to top, with a distance of 1-3mm from the surface of the inspected product, and move at a speed of no more than 10mm/s to detect the increase in helium concentration in the surrounding atmospheric environment of the inspected product.
5. Follow step 4 to sequentially detect other suspicious leakage points.
6. After the inspection is completed, press the “stop” button on the leak detector first, and wait for the standby screen to appear on the detector display before disassembling the sniffer.

Cooperative Partners



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NOY

Part of Atlas Copco Group

Consultation Hotline: 400 1677 880
Service Hotline: 18154217458
Email: noy@noytechnology.com
Website: www.noytechnology.com
Address: 14-2 Liandong U Valley International Enterprise Port, Shushan District, Hefei City, Anhui Province

Official Website