PRODUCT TECHNICAL BRIEF

109241 Internal Calibrated Leak for ASM 122, ASM 142 and ASM 310

109241 Internal Calibrated Leak for ASM 122, ASM 142 and ASM 310 - LeakLab solutions for leak testing, vacuum systems and test equipment.

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Technical Data

PARAMETER	PUBLISHED VALUE / INFORMATION
Leak detector / Configuration	Function of the 109241 module
ASM 122 / Stationary or mobile mass-spectrometer leak detector	Internal reference leak for self-checks and periodic calibration
ASM 142 / ASM 142D / Leak detector for vacuum and sniffer methods	Reference helium source integrated into the analyzer path
ASM 310 / ASM 310D / Compact leak detector for integral and local testing	Internal leak for regular sensitivity and indication-scale checks
Parameter / Value	Notes
Product designation / Calibrated internal leak for ASM 122 / ASM 142 / ASM 310	Built-in calibration source
Referenced part numbers / 2000049790 / 109241	Adixen / Pfeiffer Vacuum references stated in the source product record
Referenced item number / PN20048	Supply-list reference stated in the source product record
Tracer gas / Helium (He)	Used as the tracer gas for leak testing
Installation / Internal	Installed inside the detector and connected to its analyzer system
Nominal flow / Unit-specific	Use the exact value and temperature correction stated in the certificate or calibration documentation for the individual reference leak
Connection / Dedicated connection for ASM 122 / 142 / 310	Provides a leak-tight connection to the internal instrument path; confirm the exact version before purchase
Construction / Sealed helium reservoir with a diffusion element	Flow is determined by the element properties and helium pressure inside the reservoir
Indicative service life / Up to 10 years under the stated storage and operating conditions	This source-record figure must be checked against the documentation for the individual product series and unit

PARAMETER	PUBLISHED VALUE / INFORMATION
Option / Scope	Result
Replacement component supply / Shipment of a 109241 calibrated leak with the documentation agreed for the order	Module prepared for installation after compatibility and documentation checks
Service replacement / Removal of the previous leak, installation and leak-tightness check of the replacement, followed by instrument setup	Instrument checked with the replacement internal reference source
Leak-detector maintenance / Vacuum-section inspection, consumable replacement and testing with internal and external reference sources as agreed	Documented functional assessment before return to operation

Technical and Project Information

The 109241 internal calibrated leak is a built-in helium reference source for compatible Pfeiffer Adixen ASM 122, ASM 142 and ASM 310 leak detectors. It supports automatic sensitivity checks and stable quantitative measurements during industrial leak testing. LeakLab can supply and replace the module as part of leak-detector service work; contact us to confirm the exact instrument version, documentation and availability.

Replacement components for helium leak detectors

The calibrated internal leak identified as ASM 122 / ASM 142 / ASM 310, Internal 50 CC NO HZ, part number 109241 is intended for setup and sensitivity checks of compatible Pfeiffer Adixen helium leak detectors. It provides a stable reference helium flow for the instrument's internal calibration routine.

LeakLab can supply the 109241 module for repair or planned replacement. Confirm the detector model, serial-number range, connection and required documentation before ordering.

Purpose and Applications

The 109241 calibrated leak is used as a built-in helium reference source in a mass-spectrometer leak detector. During a self-check, the instrument introduces the internal-leak flow into the analyzer and compares the response with its configured value. This process:

- checks the leak detector indication;
- confirms that measurement-channel sensitivity has been maintained;
- supports documented leak-test measurement assurance when the individual reference-leak documentation provides the required traceability.

Typical applications include leak testing of heat exchangers, compressors, pipeline valves, vacuum components and other products for which a quantitative leak-rate result is required.

Model names alone are not sufficient to guarantee fit. Compatibility must be checked against the detector's complete configuration and service documentation.

Technical Information

Operating Principle

The gas-flow measure consists of a sealed volume filled with helium above atmospheric pressure. A helium-permeable element in the body produces a continuous, controlled flow by diffusion.

When connected to the leak detector, tracer gas enters the vacuum path and then the mass-spectrometer cell, where the detector measures the response. The manufacturer establishes the temperature dependence for the applicable gas-flow

measure. Use the temperature correction stated in the individual certificate or calibration record.

Benefits of an Internal Reference Leak

- Provides a repeatable reference signal under controlled temperature conditions.
- Allows the instrument's condition to be checked and documented before critical tests.
- Enables operator-initiated calibration without opening the system or connecting an external reference leak.
- Protects the module from routine handling damage by locating it inside the instrument.
- Shortens routine instrument-check time and reduces production-line downtime.

Supply and Service

LeakLab can supply the 109241 calibrated leak separately or as part of a service kit for a compatible Pfeiffer Adixen leak detector. The documentation and completeness of each unit should be checked against the order requirements, particularly where a regulated or audited measurement process applies.

Operating and Replacement Recommendations

- Check the detector with its internal leak before each shift or series of critical tests, as required by the applicable procedure.
- Compare the detector reading with the documented unit-specific flow after applying the stated temperature correction.
- If the result deviates materially, repeat calibration and diagnose the instrument.
- Plan replacement according to the instrument manufacturer's maintenance instructions and the results of calibration or performance checks.
- Store spare calibrated leaks in closed packaging within their specified temperature and humidity range.

The 109241 internal calibrated leak is an important measurement-assurance component for compatible ASM 122, ASM 142 and ASM 310 instruments. Contact LeakLab with the complete detector identification to confirm compatibility, delivery options, documentation and service scope.

- Helium Reference Leaks
- Scanning Electron Microscopes
- Leak-Detector Accessories Leak-Detector Spare Parts Vacuum-System Filters and Traps
- Leak-Detector Spare Parts
- Vacuum-System Filters and Traps

WORLDWIDE PROJECT CONTACT

Send the test object or system, operating conditions, target sensitivity or pressure range, applicable standard, destination country, quantity and schedule. LeakLab will review the project scope.

mail@leaklab.org

Regarding: 109241 Internal Calibrated Leak for ASM 122, ASM 142 and ASM 310

Specifications, standards, verification scope, availability and commercial terms must be confirmed for the exact configuration and destination jurisdiction before order or project acceptance.