

PASCAL

Offerings:

- Clean Room grade internal Chamber Design (with Particle Resistant Design)
- Market recognition for the most robust and accurate leak test systems
- Flexible tooling design



Standardized Components:

- Chamber and frame
- VIC, LLC'S MD-490M Leak Detector
- Gas handling cabinets
- Electrical package
- Controls and Operator Interface package
- Booster Package

Specifically designed for low-and high-pressure fuel rail leak detection applications. We offer this modular design for faster delivery of a custom system built from a standard fuel rail leak detection platform. The Pascal is offered as a single or dual chamber configuration and for a variety of pressures. Vacuum Instruments Corporation offers advanced leak detection solutions that are accurate, robust and cost-effective along with providing the industry's fastest delivery times.



Comparison of VIC Particle Resistant Chamber Design to other internal chamber designs

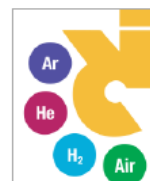
BENEFITS

- Robust design for long life
- No Finger Pointing
 - Manufacture the Leak Detector
 - Manufacture the Calibrated Leak
 - Manufacture the whole system
- Industries fastest cycle times
- Calibration verification with each cycle.
- Fast Switch over of Chambers.
- Common Controls bus for easy add-on on of new modules.
- Ergonomic design eases operators manual load/unload
- Stringent R&R study approved
- Available in single, dual configuration
- Available a variety of pressures
- Helium Recovery Enabled.



Available Configurations:

- Single or Dual Chamber
- PASCAL 100 (1500 PSI or less)
- PASCAL 200 (3000 PSI)
- PASCAL 350 (5000 PSI)
- PASCAL 500 (7000 PSI)
- PASCAL 700 (10,000 PSI)



PRODUCT SPECIFICATIONS

PERFORMANCE

Sensitivity: Smallest detectable helium leak rate 5×10^{-5} Atm-cc/second helium (atmospheric sniffer mode). Helium leak tested to 1.0×10^{-6} atm-cc/sec@600 psig. **Response Time:** Approximately 0.5 seconds.

Leak Rate Range: 10^{-3} ~ 10^{-5} Atm-cc/second direct reading of helium leak rate (compensated for atmospheric sampling).

Startup Time: Less than 3 minutes; one-button automatic operation.

Recovery Time from Helium Contamination: Less than 1 minute

Calibrated Leak: 150cc high pressure cylinder with low volume stainless steel leak element traceable to N.I.S.T. with calibration certificate supplied; easily removable for recalibration.

Pressure Measurement: Probe blocked sensor (10-3 Torr); turbopump speed characteristics for high vacuum (10-6 Torr).

Performance (Charging Unit)

Charging Pressure: unit performs evacuation (25" Hg), vacuum decay test and tracer gas backfill to 300 psig. Charging to Lower vacuum levels or 750 psig available as an option.

Testing Options: vacuum decay test and tracer gas, proof test with pressure decay.

System Details

Operator Interface: Menu-driven 6" LCD display. Includes automatic or manual sequencing of valves, diagnostics, password security protection and full user programmable test parameters, audio alarm provided for end of cycle, and test completion.

Mass Spectrometer: Miniaturized 90° deflection, fixed magnet design, all stainless-steel construction, utilizes two long life non-burnout coated filaments.

Evacuation Pump: Air Driven Venturi Pump Providing ultimate vacuum level 25.5" Hg

Vacuum Pumps: Dry (oil-free) built-in diaphragm fore pump and 70-liter/second air-cooled molecular drag pump.

Inlet System: Interstage design incorporating integral mass separator high flow atmospheric inlet.

Sniffer Probe: Ergonomic handheld sniffer probe with hose length 10-feet. Power: 120 Volts AC, 50/60 Hz, 6.5 Amps (Common)

Dimensions: 13-9/16"(344mm) W x 15-9/16"(395mm) H x 24-5/16"(618mm) D. (Common)

Utility Fittings:

• ¼" NPT female for Process 1 & 2, Part Vent, Helium Recovery, Shop Air, Nitrogen and Helium.

• ½" NPT female for Part Evacuation.

System Option Details

Configuration: Dual or Single or Dual. Dual Alternating, or Dual Independent.



FEATURES

- Flexible tooling designs
- Interchangeable Chambers with fast switchover.
- Chamber Type - solid block particle resistant design.
- Flexible Design – Top load, Ergo load configuration, or Robotic load.
- All single-piece seal blocks for improved reliability and reduced downtime
- Scaled to small and larger chamber designs
- Easy access for facility maintenance
- Test chamber dimensions-54" w x 30" h x 18" d
- Leak rate- 2×10^{-5} atm-cc/sec He
- Tracer gas test pressure-200-10,000 psig
- Made in the USA

WHY VIC?

VIC brings the following to our customers;

The Most Experience: 60+ Years of Experience in the most challenging Leak Detection projects

Supports Multiple Leak Detection Methods: Supporting over 8 different leak test methods.

No Finger Pointing: Only supplier of both Leak Detector and Custom Systems. One supplier for calibrated leaks. All manufacturing is done in-house.

Focus: Our only business is Leak Detection.

Experience: VIC has over 1000 systems in the field across all the major leak testing methods.

Reliability: The majority of the VIC systems are still in operation, including systems from 1995 and before.

Local Support: US Headquarters and three support locations in Mexico to provide superior local support.

