

# Scepter

## Offerings:

- IHX patent pending technology
- Market recognition for the most robust and accurate leak test systems
- Flexible tooling design



## Standardized

### Components selected:

- Chamber and frame
- VIC, LLC'S MD-490M Leak Detector
- Gas handling cabinets
- Electrical package
- Controls and operator interface package

## Specter

Specifically designed for thermal leak detection applications. We offer this concept for fast delivery of a custom system. The Scepter is offered as a single, dual or IHX configuration. Vacuum Instruments Corporation offers advanced design thermal leak detection solutions that are accurate, robust and cost-effective along with providing the industry's fastest delivery times.

## APPLICATIONS

### Air Conditioning & Refrigeration Systems

- Coils & Hoses
- Evaporators & Condensers
- Compressors

### Automotive Components

- Evaporators & Condensers
- Radiators
- Air conditioning components
- Fuel Tanks
- Fuel Rails injection systems
- Hoses
- Heat exchangers
- Heater cores
- Pressure transducers
- Headlights
- Wheels

### Appliances

- Fire Extinguishers
- Gas Meters
- Heat Pumps



Scepter Single Chamber



Scepter Dual Chamber

## BENEFITS

- IHX ready
- Industries fastest delivery times
- Single source for system and leak detector
- Test different size parts in the same chamber
- Ergonomic design eases operators manual load/unload
- Rugged 'A' frame systems design
- Stringent R&R study approved
- Available in single, dual or IHX configuration
- Customized for your individual testing requirements
- Robustness
- Accurate

# Product Specifications

## Performance

**Sensitivity:** Smallest detectable helium leak rate  $5 \times 10^{-5}$  Atm-cc/second helium (atmospheric sniffer mode). Helium leak tested to  $1.0 \times 10^{-6}$  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:

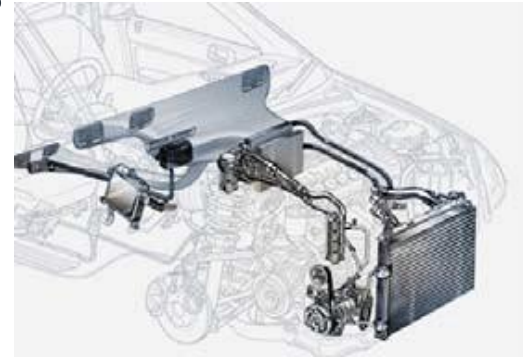
- ¼" NPT female for Process 1 & 2, Part Vent, Helium Recovery, Shop Air, Nitrogen and Helium.
- ½" NPT female for Part Evacuation.

## System Option Details

**Table:** The Leak ID Station Single or Double Wide Bench (quoted separately).

**Tooling:** Tooling to connect your parts with the Leak ID Station.

**PM Kits:** 5 Year Preventative Maintenance Kits to deliver even lower Cost of Ownership



## FEATURES

- Flexible tooling designs
- Interchangeable Fixture Pallets
- Reduced clamp set weight
- Chamber Type - dual alternating automatic sliding door type with SST chambers
- Modular design
- Compact, complaint, and durable floating mounts
- All single-piece seal blocks for improved reliability and reduced downtime
- Scaled to small and large chamber designs
- Easy access for facility maintenance
- Test chamber dimensions-54" w x 30"h x 18"d
- Leak rate-  $2 \times 10^{-5}$  atm-cc/sec He
- Tracer gas test pressure-200-300 psig
- Made in the USA



Scepter IHX

