

At the heart of every V.I.C. turnkey vacuum helium mass spectrometer system lies our...

MD-490M



MD-490M Turnkey System Helium Leak Detector



External Inlet Valve & Forepump Arrangement



Fuel Tank Assembly Test



"A" and Flat Coil Heat Exchanger Assembly Test

Our Leak Detection Systems use the most sensitive and accurate leak detection device science has developed -- the helium mass spectrometer. The helium mass spectrometer is at least 1000 times more sensitive than other leak detection methods. V.I.C. Leak Detection has taken the helium mass spectrometer out of the laboratory, where it has served as a research tool for over 30 years, and

redesigned it to meet the stringent requirements of ruggedness, reliability and ease of maintenance that are essential in any industrial environment.

V.I.C.'s Industrial Leak Detection Systems are designed around a standard Turbo-Test™ MD-490M industrial leak detector, which is manufactured independently from the application.

Vacuum Instruments Corporation, LLC

2101 Ninth Avenue • Ronkonkoma NY 11779 • Tel 631 737 0900 • Fax 631 737 1541
vicleakdetection.com • email sales@vicleakdetection.com REV 061618

©2018 Vacuum Instruments Corporation, LLC; ©VIC Leak Detection is a registered trademark and the VIC symbol is a trademark of Vacuum Instruments Corporation, LLC.



MD-490M Leak Detector

Performance Specifications	
Sensitivity	System Mode, minimum detectable helium leak rate 2.5×10^{-9} atm-cc/sec.
	Sniffer Mode, minimum detectable helium leak rate 2.5×10^{-7} atm-cc/sec.
Response Time	< 1.0 second system mode testing.
	< 1.5 seconds sniffer mode testing.

Display Leak Rate Range	
System Mode Testing	0-10 Volts output to main PLC. Leak rate configured to systems calibrated gas leak.
Interface Signals	Auto-Zero, Ready, Leak Rate and Fault Signals.
Sniffer Mode Testing	10^{-3} to 10^{-7} atm-cc/sec He direct-reading.
Start-Up Time	Cold Start-Up, less than 3 minutes.
	Standby Start-Up, less than 1 minute.
	One button automatic operation.

Vacuum System	
Mechanical Pump	External forepump arrangement, standard package with 7 CFM.
High Vacuum Pump	60 liter/second air-cooled turbo-molecular.
Inlet System	External PLC controlled valves, externally mounted.
Pressure Measurement	Thermocouple input for rough vacuum (atm- 10^{-3} Torr), Turbo pump speed characteristics for high vacuum (10^{-6} Torr).
Valve	High vacuum rated solenoid actuated fore-line isolation.

Electrical	
Power	115 VAC/60 Hz, 6 Amp, (other voltages available upon request).
Console	Microprocessor-based electronics incorporating 40-character alphanumeric prompting display. Full automatic operation including start-up, shutdown, leak rate ranging, zero control, high vacuum protection and diagnostics including runtime, and operating parameters.
Remote Operation Box	Includes 40 segment leak rate signal indicator and operator function controls. A 15' coiled cord is supplied.
Audio	Built-in ramp type audio alarm with large 4" high output speaker. Volume and threshold adjustments provided.

Physical	
Dimensions	13-9/16"W, 24-5/16"D, 15-9/16"H (344mm W, 618mm D, 395mm H)
Weight	70lbs (32kg.)