



PRE-CHARGED HELIUM LEAK TEST SYSTEM



The Pre-Charged Helium Leak Test System is a chamber type leak tester tuned to detect Helium that may be leaking from the tested product in the chamber while under vacuum. This PC controlled system is supplied with a bar code reader for unit identification, and tracking/recording of test results and can be networked with other "Line" operations to ensure that quality standards are maintained.

In this leak test system, product such as "Evap" coils pre-charged with Helium at 150 PSIG prior to entering the leak-testing chamber will be tested in the inherently more sensitive inside-out mass-spectrometer based "go-no-go" leak detection system. This system is capable of testing to an equivalent sensitivity of 0.25 oz/yr of R22 or R410A leaking into atmosphere while meeting a TAKT Time of 60 seconds including a 15 second allowance for load/unload. The progressive sensitivity test technique employed by VTI allows it to handle large leaks (equivalent to tens of thousands of ounces per year of refrigerant) without "poisoning" the leak detector and utilizes VTI's AERO VAC Odyssey mass spectrometer instrument.

The nominal chamber inside dimensions are 25" Wide X 30.5" Deep X 29" High and utilizes a ergonomic stainless steel slide-out tray, riding on stainless steel ball bearing glides, to manually transfer product from the load-unload position on the assembly line to the test position inside the vacuum chamber. Chamber dimensions and material handling design can be adapted to meet custom requirements

The system employs a fully automated test cycle including the Pass/Fail decision so that a single person can perform all operations. This system contains an on-board calibrated leak for calibration of the mass spectrometer. A second on-board calibrated leak is used for verification of sensitivity at the conclusion of each test cycle.

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