



The **VTech VacuTester** is an automatic Helium Leak Tester in Vacuum Chamber for coils and other components, or sealed refrigeration systems, in a high-production environment. The system is capable of detecting leaks in the 1×10^{-7} mbar l/s range equivalent to approx. 0.03 oz/y of refrigerant. Multiple parts can be tested in the same cycle.

The Unit Under Test (UUT) is placed inside a vacuum chamber and pressurized with Helium gas, typically at its operating pressure. Any Helium gas escaping from a leaking UUT is detected by the integrated Helium Mass-Spectrometer. This technique can achieve very low leak test resolution due to the absence of background noise.

MAIN FEATURES:

- **Industrial:** built with primarily commercial components, creates greater reliability and parts availability
- **High Productivity:** cycle time can be as low as 30 sec with twin vacuum chamber configuration (as shown above)
- **True Test:** testing at the system's operating pressure guarantees maximum test quality

Equipment Features



1. Control Station 2. Vacuum Test Chamber 3. Vacuum Pump and Blower 4. Helium Mass-Spectrometer

Equipment Utilization

- Depending on the target cycle time, a PDLT can be performed prior to automatic Helium testing. The goal of PDLT is to eliminate gross leaks prior to Helium pressurization of the UUT.
- The result of the cycle is Pass/Fail (i.e. leak location) requires a separate manual sniffing operation to take place upon opening the vacuum chamber or in the repair area.
- Helium gas used in the test can be recovered and reused (see VTech Booster Helium Recovery System).
- Vacuum Chamber Leak Testing provides the highest resolution typical in the HVAC/R Industry and can be applied to many different industries.

Available Options:

- Single or twin vacuum chamber
- Automatic Pass/Fail punching of the UUT
- Data Management and Process Traceability
- Integrated Helium Recovery

Equipment Specifications

Tracer Gas Type	Helium
Helium Leak Test Resolution	1×10^{-7} mbar l/s*
User Interface	12" Color Touch Screen
Control	PLC
Leak Detector	Helium Mass-Spectrometer
Cycle presets (recipes)	50 (expandable to 200)
Approx. Dimensions	Custom
Approx. Weight	Custom
Power supply	115V 1 phase 60 Hz (others on request)

*Depending on test conditions

