

VTech MasSpec as installed at a major coil manufacturer in Asia, testing plate heat exchangers with internal circuit testing. Cycle time: 1 min for two coils.

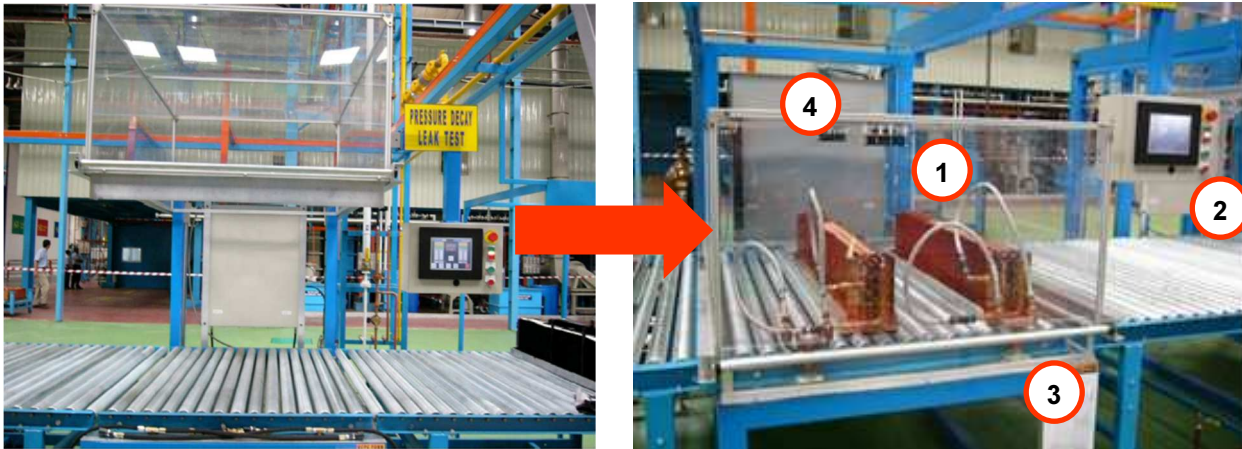
The **VTech MasSpec** is an automatic Helium Leak Tester for coils and other components, or sealed refrigeration systems, in a production environment. The system is capable of detecting leaks in the 5×10^{-6} mbar l/s range equivalent to approx. 0.1 oz/y of refrigerant. Multiple parts can be tested in the same cycle.

The **VTech MasSpec** uses a low-concentration helium mix, thereby reducing helium consumption. Its operating principle involves pulling a deep vacuum in the Unit Under Test (UUT) and then surrounding it with low-pressure Helium tracer gas. If a leak is present, the Helium finds its way inside the UUT, where it is detected by the integrated Helium Mass-Spectrometer.

MAIN FEATURES:

- **Industrial:** built with primarily commercial components, creates greater reliability and parts availability
- **Automatic:** solves the issues related to manual sniffing
- **Affordable:** reduces both the investment required for automatic leak testing as well as its operating cost (Helium consumption)

Equipment Features



1. Helium Containment Hood 2. Touch Screen User Interface. 3. Integrated conveyor frame 4. Electrical and Mechanical Control Cabinet

Equipment Utilization

- A Pressure Decay Test is recommended prior to Helium Leak Testing in order to eliminate gross leaks.
- The installation as above shows back-to-back PDLT and Helium testing at a major coil manufacturer in Asia.
- Since automatic leak testing is a Pass/Fail test, manual sniffing is required in the Repair Area, in order to locate the leak.
- Due to the reduced consumption of helium, Helium Recovery is not required.

Available Equipment Options include:

- Process Data Management and Barcode
- Multiple Part Testing
- Internal Circuit Testing
- Variable Volume Enclosure

Equipment Specifications

Tracer Gas Type	Helium
Helium Leak Test Resolution	5×10^{-6} mbar l/s*
User Interface	8" Color Touch Screen
Vacuum Pump Size	7, 15 and 21 cfm, according to requirements
Nitrogen supply	700 kPa (100 psig)
Helium supply	350 kPa (50 psig)
Control	PLC
Leak Detector	Helium Mass-Spectrometer
Cycle presets (recipes)	50 (expandable to 200)
Approx. Dimensions	48" x 62" x 110"
Approx. Weight	310 lbs.
Power supply	230V AC, 20 A, 1~, 50/60 Hz (others on request)



*Depending on test conditions