



“INSIDE/OUT” HELIUM LEAK TEST STATION FOR EVAPORATOR COILS



This two-chamber system uses helium to leak test condenser and evaporator coils to the leak-rate specification of 1/10 oz of refrigerant per year (10⁻⁶ std-cc/sec of helium) at a production rate of 1 part every 30 seconds. During this cycle, the parts are also automatically pressure tested and flow tested. The PC-controlled system has a fully automated test cycle including the pass/fail decision, eliminating operator subjectivity, and provides statistical QA data storage and analysis.

The system performs an “Inside/Out” type of test in which the coil is pressurized with helium or a helium/air mixture inside a chamber which is evacuated. Helium passes through any defect in the coil and is detected by a mass spectrometer which samples the gas stream flowing from the chamber to the vacuum pumps. VTI also builds “Outside/In” leak testing systems in which the coil is evacuated inside an enclosure containing helium or a helium/air mixture.