

# 960, 947, & 948 Auto-Test® Leak Detectors



## Available in Turbo or Diffusion Pump

Varian's microprocessor-controlled Auto-Test leak detectors are ideally suited for automated testing, high-speed production testing, or programmable operation. They include features such as pushbutton tuning, calibration and zeroing, automatic ranging, and displayed condition codes. The 948 model incorporates a cold trap which allows rapid testing of parts with contaminants or high water vapor content.

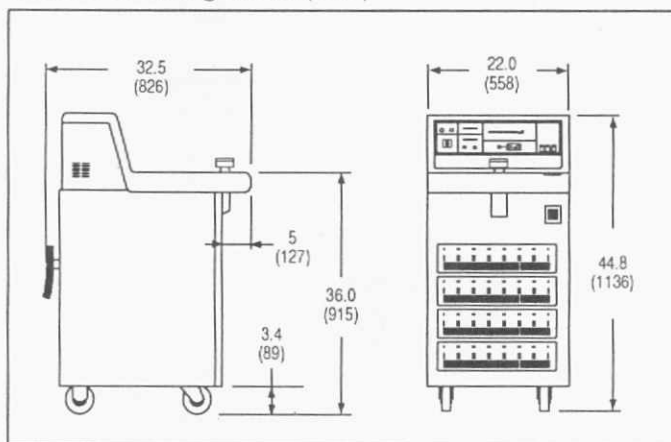
To enhance performance, the Auto-Test leak detectors are offered with an optional auto sequencer, interface package, or a hand-held remote module.

The auto sequencer, used for repetitive test applications such as IC testing, will initiate and complete the test cycle and then display a reject or accept identification.

An optional interface package enables the leak detectors to deliver and accept signals from other process equipment, making them ideal for production line testing. In addition, an RS232 computer interface adds the advantages of programming and data storing capabilities.

The hand-held remote module, which is linked to the leak detector through the interface package, allows operation of the leak detector from distances of up to 25 feet.

## outline drawing inches(mm)



## specifications

Sensitivity:	(model 960) $8 \times 10^{-12}$ atm cc/sec (air) $2 \times 10^{-11}$ atm. cc/sec (He) (model 947/948) $7.5 \times 10^{-11}$ atm cc/sec (air) $2 \times 10^{-10}$ atm. cc/sec (He)
Response Time:	< 2 second (He)
Amplifier Drift:	< 2% of the most sensitive scale per AVS std. 2.1, < 5% for 960
Noise Level:	2% of the most sensitive scale per AVS std. 2.1, < 5% for 960
Cycle Time:	6 seconds atm. to test mode (fine) 3 seconds for small volume (gross)
Power:	115V, 50/60 Hz, 1 $\emptyset$ , 30 amp 230V, 50/60 Hz, 1 $\emptyset$ , 15 amp

## ordering information

	Order Number	Shipping Wt. (lb/kg)	Price
960 Auto-Test high-sensitivity diffusion pumped leak detector with 7 cfm roughing pump, built-in calibrated leak (115V)	0960-L6900-301	540/245	\$25,725
960 Auto-Test high-sensitivity diffusion pumped leak detector with 7 cfm roughing pump, built-in calibrated leak (230V)	0960-L6900-302	540/245	25,725
960 Auto-Test high-sensitivity turbomolecular pumped leak detector with 7 cfm roughing pump, built-in calibrated leak (115V)	0960-L6910-301	540/245	29,137
960 Auto-Test high-sensitivity turbomolecular pumped leak detector with 7 cfm roughing pump, built-in calibrated leak (230V)	0960-L6910-302	540/245	29,137
947 Auto-Test leak detector with 7 cfm (11.9m <sup>3</sup> /hr) roughing pump, built-in calibrated leak	0947-K9807-301	510/232	24,675
947 Auto-Test leak detector with 7 cfm (11.9m <sup>3</sup> /hr) roughing pump, built-in calibrated leak (230V)	0947-K9807-302	510/232	24,675
948 Auto-Test leak detectors with cold trap, 7 cfm (11.9m <sup>3</sup> /hr) roughing pump, built-in calibrated leak	0948-K9808-301	530/240	25,725
948 Auto-Test leak detectors with cold trap, 7 cfm (11.9m <sup>3</sup> /hr) roughing pump, built-in calibrated leak (230V)	0948-K9808-302	530/240	25,725
947 Auto-Test leak detector with turbomolecular high vacuum pump, 7 cfm (11.9m <sup>3</sup> /hr) roughing pump, built-in calibrated leak	MSP	550/250	28,087
948 Auto-Test leak detector with turbomolecular high vacuum pump, 7 cfm (11.9m <sup>3</sup> /hr) roughing pump, built-in calibrated leak	MSP	570/259	29,137

For spare parts and accessories see pages 291 to 293.

Note: Single in-stick Convert-A-Port™ fixture and universal fixture are available with models 947 and 948. See factory-installed options.

## IC Testers for Mil Spec Testing



Varian's new family of rapid cycle IC testers makes small part leak testing to MIL SPEC standards almost totally automatic and super fast. The system uses helium as a tracer rather than radioactive gas, eliminating worries about worker exposure or residual radiation.

In use, the operator merely inserts the devices into the fixture and closes the lid. The test cycle starts automatically.

### *three fixtures to choose from:*

#### **dual in-stick Convert-A-Port™ test fixture**

Capable of testing in excess of 9000 parts per hour to MIL SPEC 883 B.

#### **single in-stick Convert-A-Port test fixture**

Capable of testing in excess of 4000 parts per hour to MIL SPEC 883 B.

#### **cup-shaped test fixture**

Tests individual IC's with a less than 6 second cycle time to MIL SPEC 883 B.

For detailed information on which of the three leak detectors best fits your needs, consult with your Varian Sales Engineer.



### **high throughput**

- 9000 parts/hr with dual in-stick
- 4000 parts/hr with single in-stick
- less than 6 second cycle time with cup fixture

### **MIL spec testing**

- tests to specified leak rate

### **simplified operation**

- automatic cycling
- operator only loads and unloads
- no LN<sub>2</sub> required

### **high reliability**

- fully automatic go/no-go testing
- operator unload routine is different with a failed test
- no meters to watch
- system will not test without all correct status signals

### **start-up support**

- installation by qualified sales engineer
- operational checkout
- operating instructions

### **after sale support**

- warranty extensions
- training classes
- video training films
- spare parts available from selected locations worldwide

### **fixture specifications**

- cup-shaped test fixture 4" diameter bore, 1" deep, less than six second cycle time
- single in-stick Convert-A-Port™ test fixture, stick chamber size 1.3" ID, 21" long, 8-12 second cycle time
- dual in-stick Convert-A-Port™ test fixture, two separate stick chambers identical in size to single stick described above.