

959 Power-Sniff Leak Detector

The 959 Power-Sniff Leak Detector is the ideal tool for helium sniffing applications that demand trouble-free operation, fast cycle times, and high sensitivity. Based on the industrially-proven 959 Leak Detector and the maintenance-free MacroTorr high vacuum pump, the 959 Power-Sniff offers outstanding performance compared to standard turbo, diffusion, or drag pump designs. It eliminates the need for special connecting ports and mass separating membranes.

As a result, the 959 Power-Sniff is more reliable and requires less maintenance than competitive sniffing leak detectors.

The 959 Power-Sniff features quick and fully automatic startups, a large leak rate display, and full audio control. The highly sensitive spectrometer tube is easily serviceable with burn-out resistant dual iridium filaments that are easily changed in minutes. The power probe sniff hose is a simple design with a disposable tip filter that can be changed in seconds.

Designed especially for harsh industrial environments, the 959

Power-Sniff can operate in ambient temperatures up to 120° F (49° C). Its operating controls are pushbutton type and the service controls are behind a lockable door panel. The 959 Power-Sniff includes the 959 MacroTorr leak detector, a sniffing power probe with a 10 foot connecting line, and a package of spare tip filters. Mounting carts and your choice of roughing pumps can be found in the ordering information.



Features

- Sensitivity to $< 1 \times 10^{-7}$ atm cc/sec for helium
- Fast signal response and cleanup
- No special sampling pump or membranes required
- Totally self controlled and protected
- Convertible to evacuation testing
- MacroTorr high vacuum pump

Benefits

- Can test for equivalent Freon 134 leaks to less than 0.001 ounce per year
- Enhanced production testing throughput
- High reliability, less maintenance
- Automatic startups, insensitive to operator errors
- Enhanced leak testing flexibility
- Maintenance-free spectrometer pumping
- Can evacuation test up to 2 Torr without throttling
- High helium pumping speed for quick signal cleanups

Technical Specifications

■ Minimum detectable signal/sensitivity (with 3.2-cfm pump) in accordance with AVS standard 2.1:

- 2×10^{-8} atm cc/sec (helium) – Sniffing Mode
- 1×10^{-9} atm cc/sec (helium) – Evacuation Mode

■ Response time

Sniffing response time is less than 1 second

■ Amplifier drift

Less than 2% of most sensitive scale in accordance with AVS standard 2.1

■ Noise level

Less than 2% of full scale, peak-to-peak, in accordance with AVS standard 2.1

■ Leak indicator

50-segment bar graph with exponent display. Standard ranges are 10^{-8} to 10^{-4} atm cc/sec.

■ Recorder jack

0-5 VDC

■ Audio alarm

Volume control and output jack for remote speaker

■ Sensing tube

Automatically protected, temperature-stabilized, solid-state device. The entire tube can be quickly removed for maintenance. Dual-filament, disposable, all-welded ion source.

Removable magnet structure for easy cleaning.

■ Spectrometer pump

V70D maintenance-free MacroTorr pump

■ High-reliability, fast-acting solenoid valves

Field-replaceable actuators and seats

■ Test port

1-1/8" (28.5 mm) ID quick coupling for evacuation testing, calibration, and for adapting to the sniffer probe.

■ Power requirements

- 115 V or 220 V, 50-60 Hz (15/7.5 amps)

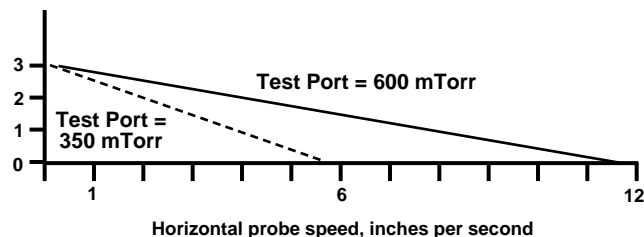
■ Weight (base unit)

- 50 lb (23 kg) approx.
- 60 lb (27 kg) approx. shipping

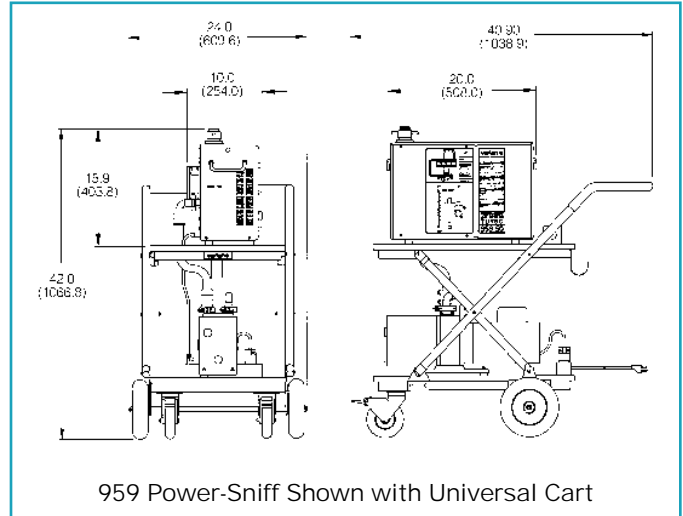
Sniffer Probe Speed vs Distance

Minimum signal response when passing a probe near a 7×10^{-6} atm cc/sec calibrated leak

Horizontal distance from calibrated leak, mm



Dimensions inches (mm)



Ordering Information

All configurations include the basic leak detector and sniffing probe with spare tip filters. Customize the ordering number according to the desired backing pump, mounting configuration, and operating voltage :

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Roughing Pump

09 = 90 l/m (3.2 cfm)

20 = 200 l/m (7 cfm)

Mounting Configuration

B = Bench (includes manifold)

U = Universal Cart

Voltage

120 = 120 V

220 = 220 V

■ Accessories and spare parts

Varian Part No.	Description
0981-F8473-320	Refillable calibrated leak-He for sniffing with adapter for evacuation mode. ($10^{-5}/10^{-6}$ std cc/sec range)
0981-L6749-301	O-ring kit
0981-82850-302	Thoriated iridium ion source
0981-L9030-301	Preamplifier unit
0991-K9565-303	Package of 10 spare sniffer probe filters
0991-K9565-302	Spare complete Power Probe sniffer attachment with inlet filters
0981-6999-09-750	Additional instruction manual