

# LEAKSHOOTER V.2™

Ultrasonic Visual Leak Detection System

**The Evolution in Ultrasonics Detection**



**LKS-1000 V.2**

# LEAKSHOOTER V.2™



- No Leaks or Partial Discharge
- Near Leaks or Partial Discharge
- Leaks or Partial Discharge in Front

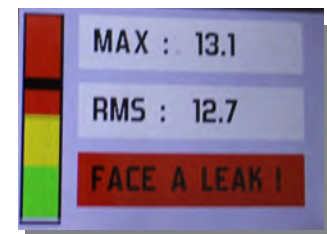
The LeakShooter - LKS1000 V2 is a multi-role versatile sophisticated instrument. It is extremely sensitive and is capable of detecting all gas leaks, even the smallest, including those no bigger than the size of a syringe needle, at a distance of 20 meters. Any form of gas leaks can be detected in all types of industrial environment thanks to the adoption of a wide adjustable gain and a narrow bandwidth on the LeakShooter to filter out all undesirable background noise and ultrasonic inferences.

The LeakShooter is used to search, scan, point and capture leak or partial discharge data. When it comes near a pressurized gas leak, a dynamic yellow target automatically appears on-screen. The target will turn red and shrinks as it approaches the source of the ultrasonic signal. A three zone color bar-graph at the screen bottom facilitates the optimum search leak point.

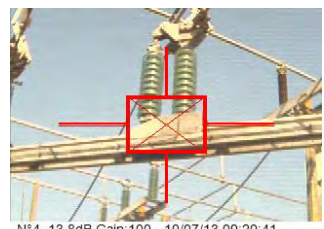
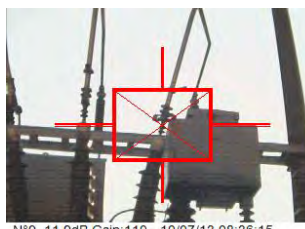
When the instrument is directly facing the leak, a cross will appear in the center of the dynamic target. It is then possible to capture the data and save the precise location of the leak or partial discharge inside LeakShooter internal memory.

When the LeakShooter is used with the contact probe, it can assess the condition of a steam trap or a valve. The visual sensor can be turned off to display a second on-screen mode showing a three zone bar-graph, dB Max and dB RMS values with reading interpretation at the screen bottom.

Thirdly, the LeakShooter can be used to detect high tension electrical partial discharge and corona source as its highly sensitive ultrasonic sensor is housed inside a unique cone shape which allows LeakShooter to detect long range ultrasonic signals emitting from electrical partial discharge up to 20 meters away.



Valve leak detection



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No Leaks or Partial Discharge

Near Leaks or Partial Discharge

Leaks or Partial Discharge in Front

Each data shows the leak or partial discharge source with a color target if ultrasonic signal is detected, the saved data is numbered, date & time stamped and shows the dB RMS values and gain setting used.

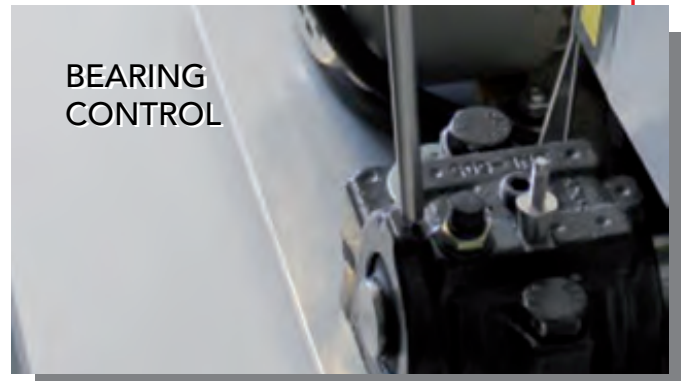
The captured data can be uploaded directly onto a PC without the need for software driver installation as the driver integrated inside the device firmware when connected through a USB communication cable, the uploaded data are ready to be attached to the inspection audit reports.

Whilst visually scanning for a leak, it is possible to use the traditional optional method of leak detection which is to listen for the hissing sound of the leak or humming tone of partial discharge using our industrial noise isolating headphones supplied. The headphones can be plugged directly into the instrument or output to an external waveform analysis software.

Optional accessories are available for Leak-Shooter enabling it to be used for other non-gas leak applications like seal conditions of a large tank or rubber panel seals or hard to reach areas using both flexible external ultrasonic sensor probes namely: 400mm - LKSFLEX or the new 1500mm - LKSFLEX-1500.

For mechanical machinery, the user can use the external rigid contact LKSPROBE ultrasonic sensor probe to inspect steam trap and valve conditions.

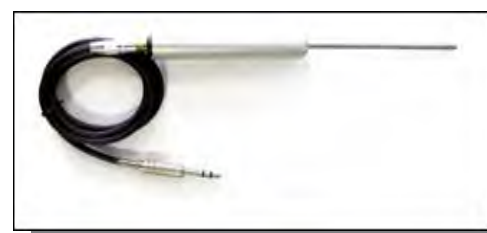
For inspection of hatch, tightness seal conditions of the tanks or panels, we recommend the use of LKSDOME. It emits multiple ultrasonic waves over a wide area through the 13 ultrasonic emitters arranged in a semi-spherical shaped dome shape to allow maximum signal dispersion. The device offers a dual mode selection of ultrasonic signal levels customised to the requirement of different types of seal condition testing applications.



Optional: LKSFLEX 400mm/1500mm Ultrasonic Probe



Optional: LKSDOME Ultrasonic Emitter



Optional: LKSPROBE Ultrasonic Contact Probe (Mechanical application: Steam-trap / Bearing)

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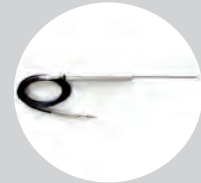


## TECHNICAL SPECIFICATION

<b>Sensitivity</b>	Detects a leak of 0,1 mm at 3 bars at 20 m
<b>Camera</b>	Colour 640 x 480 pixels
<b>Display</b>	LCD colour 3,5" 320 x 240 pixels
<b>Pictures</b>	BMP format, number, date and time
<b>Dynamic target</b>	Dynamic red target with cross on strong leak / partial discharge Dynamic yellow target with cross on light leak / partial discharge
<b>Measurements</b>	Real-time dB RMS and MAX line indicators on 3 zones colour bargraph
<b>Memory</b>	Up to max. 1'000 data, can be uploaded to PC
<b>Communication</b>	Mini USB cable supplied
<b>U.S. sensor</b>	Open type • Bandwidth $\pm 2$ kHz to -6 dB • Central frequency 40 kHz $\pm 1$ kHz • Adjustable frequency mixer from 34 to 46 kHz • Auto gain, and adjustable from 50 to 110 dB
<b>Headphones</b>	Adjustable volume from 0 to 10
<b>Power supply</b>	Lithium-ion rechargeable battery
<b>Autonomy</b>	6+ hours and 10+ hours with external charging through USB port
<b>Temperature range</b>	- 10°C to + 50°C
<b>Dimensions</b>	230 x 100 x 70 mm
<b>Weight</b>	580 grams for the LKS1000 ; 3,9 kg including industrial carry case
<b>Software</b>	Integrated driver installation
<b>CE Standards</b>	CEM 2004/108/CE : EN61000-6-4 and EN61000-6-2
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Ref. LKSFLEX Flexible 400 mm / 1500 mm U.S. sensor</li> <li>• Ref. LKSPROBE Mechanical U.S. sensor</li> <li>• Ref. LKSCOVER Holster and neck strap</li> <li>• Ref. LKSDOME Ultrasonic emitter with 13 emitters</li> </ul>



400mm/1500mm  
U.S. Flexible sensor probes  
ref. **LKSFLEX / 1500**



Mechanical U.S. probes (steam trap / bearing) ref. **LKSPROBE**



Ultrasonic emitter  
ref. **LKSDOME**



Holster  
ref. **LKSCOVER**

\*Listed specifications, appearance and design are subject to change without notice or obligation on the part of the manufacturer.

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### PARTNER PRODUCTS:

#### AVV-711™



**AVV-711**  
Wireless Laser Shaft Alignment System



**LATEST! 107Bi (5-in-1)**  
Ultra Compact FFT Data Collector  
Spectrum & Bearing Diagnostic, Tachometer, IR Temperature



### SYNERGYS TECHNOLOGIES

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