



LEAKSHOOTER  
LEAK DETECTION CAMERA

LEAKSHOOTER® - LKS1000

# LEAKSHOOTER® LKS1000-V2+

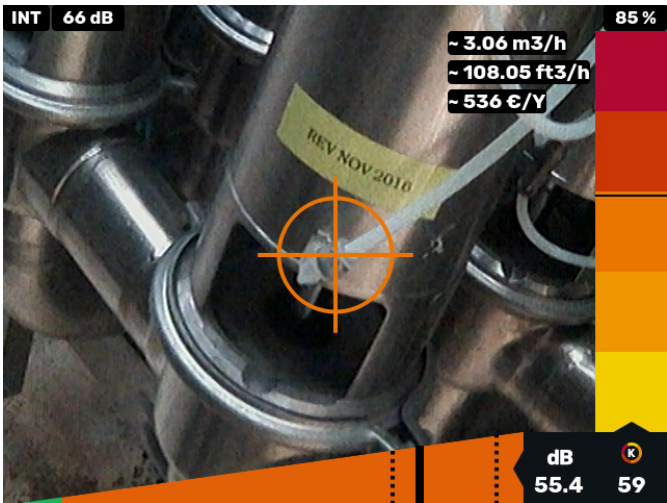
Leak detection camera



### V2+, the ultimate leak detector

Film, view, listen and capture precisely, compressed air, compressed gases, steam and vacuum leak locations thanks to the LEAKSHOOTER® LKS1000-V2+ camera. Compressed air is expensive to produce and 20 to 40% is lost in leaks. Investing in a system to look for these leaks saves energy and improves margins (ISO50001).

The LEAKSHOOTER® LKS1000-V2+ is used like a video camera. You scan your installation, once a leak has been located it will appear as a dynamic target on the large color screen. This target will move and reduce in size to the center of the screen as you approach the exact leak location. A horizontal bargraph also helps you to find the leak origin, this being the point where the maximum signal is emitted. It is then possible to save and download leak pictures to PC via USB for reporting.



# LEAKSHOOTER® LKS1000-V2+ IR

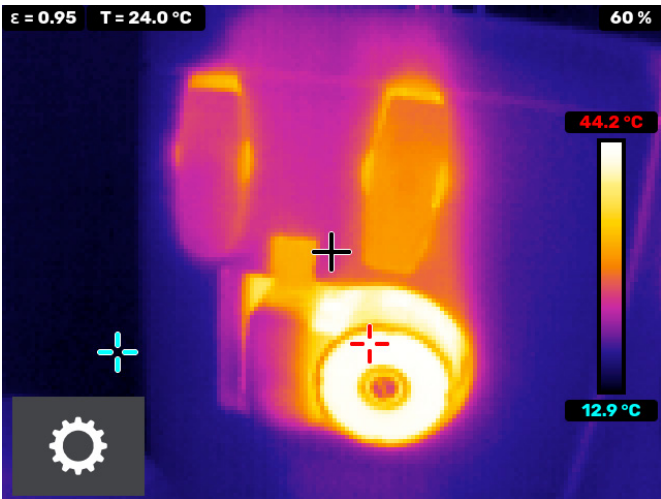
Leak detection camera and thermal infrared 160x120



### V2+IR, the V2+ which sees thermal heating problems

The LEAKSHOOTER® LKS1000-V2+IR uses the ultrasound detection capabilities of the V2+ and by adding a thermal detection capability can be used for electrical, mechanical and process installations. All displayed on a large 5.7" color screen.

In fact, the LEAKSHOOTER® LKS1000-V2+IR has an embedded FLIR LEPTON 160x120 pixels infrared camera (IR), working on a temperature scale from -10°C to +400°C. In its firmware, you will find 1 fixed central cursor and 2 automatic to locate the highest and lowest temperature values of the scene. You have adjustable emissivity and 3 colored palettes. It is also possible to save and download thermal pictures to PC via USB for reporting.





# LEAKSHOOTER® LKS1000-V3+

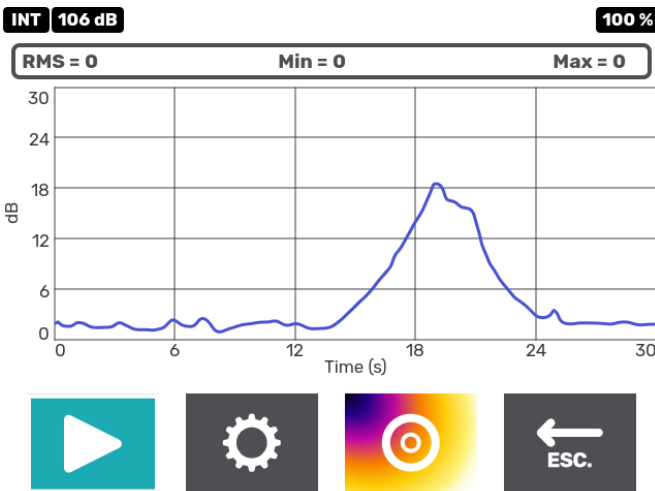
Leak detection camera & thermal infrared 80x60 and basic steam trap condition analyzer



### V3+, a diagnostic help for your steam trap

The LEAKSHOOTER® LKS1000-V3+ uses the ultrasound detection capabilities of the V2+ and adds the capability to analyze manually your steam trap condition (using ultrasound & temperature).

The LEAKSHOOTER® LKS1000-V3+ has a special firmware STRAPSHOOTER® which will help you to hear and see (REAL TIME curve) the ultrasound noise produced inside the trap. Thanks to this ultrasound curve evolution and to its embedded thermal infrared camera (FLIR LEPTON 80x60 pixels, with a temperature range from -10°C to +400°C), you will be able to accurately assess the condition of the trap. So, it will be possible to ascertain whether your trap is LEAKING, MODULATING or CLOSED... It is then possible to save and download curve and thermal pictures to PC via USB for reporting.



# LEAKSHOOTER® LKS1000-V3+ PRO

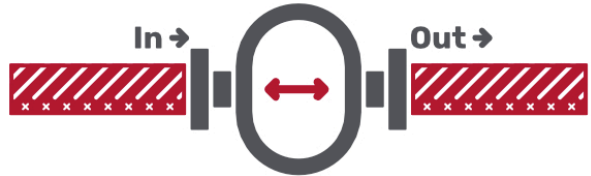
Leak detection camera & thermal infrared 160x120 and expert steam trap condition analyzer



### V3+PRO, the expert for your steam trap diagnostic

The LEAKSHOOTER® LKS1000-V3+PRO uses the ultrasound detection capabilities of the V2+ adding the capability to analyze automatically your steam trap condition (using ultrasound & temperature).

The LEAKSHOOTER® LKS1000-V3+PRO has a special firmware STRAPSHOOTER+® which will help you to hear and see (REAL TIME curve) the ultrasound noise produced inside the trap. Thanks to this ultrasound curve evolution and to its embedded thermal infrared camera (FLIR LEPTON 160x120 pixels, with a temperature range from -10°C to +400°C), the integrated algorithm is able to indicate the condition of the trap, using one of seven possibilities. It is then possible to save and download curve with the trap condition and thermal pictures to PC via USB for reporting.



# Different versions

	V2+	V2+IR	V3+	V3+PRO
Leak detection (compressed air, gazes, steam, vacuum)	X	X	X	X
Infrared camera 80x60 px			X	
Infrared camera 160x120 px		X		X
MANUAL basic analysis for steam trap condition			X	X
AUTOMATIC expert diagnosis for steam trap condition				X

# Different functions

	V2+	V2+IR	V3+	V3+PRO
Leak detection (Compressed air-Vacuum-Process gazes-Steam...)	X	X	X	X
Cost and flow estimator – K function (Gives an estimation about leak size)	X	X	X	X
Infrared camera 80x60 pixels (Looking for thermal heating problems)			X	
Infrared camera 160x120 pixels (Looking for thermal heating problems)		X		X
High voltage default detection (Corona-Partial discharge-Arcing...)	X	X	X	X
Tightness or seal integrity control with dome use* (Looking for leaks without using gas)	X	X	X	X
Electronic stethoscope** (To listen to mechanics, trap, valves, hydraulic...)	X	X	X	X
Basic analysis of steam traps** (REAL TIME ultrasound curve +T° measurements)			X	
Expert analysis of steam traps** (REAL TIME ultrasound curve +T° measurements + AUTO diagnosis algorithm)				X

\* ultrasonic dome emitter is required

\*\* ultrasonic contact probe is required

# Accessories

Standard kit:



ABS Case



Universal charger with adapters



USB PC cable



Wired headphone

Options:



Flexible sensor 400mm/1500mm



Dome emitter



Bluetooth headphone



Contact probe



Bluetooth headphone 3M

SYNERGYS TECHNOLOGYS has been established in 1996 in France, to offer innovative and professional solutions for preventive and predictive maintenance.

SYNERGYS TECHNOLOGYS is the inventor of the ultrasonic visualization concept with the **LEAKSHOOTER®**, of the MCP (Machine Condition Picture) concept with the **VSHOOTER®** and of the thermal contour concept with the **TSHOOTER®**.

We are present worldwide with professional and trained distributors.



**LEAKSHOOTER®** an innovation of SYNERGYS  
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