



# H.V. DIAGNOSTICS SOLUTIONS AUSTRALIA

---

The PD & Leak Detection Camera



Invisible partial discharges in power grids are often the first indication of failure

## MAKING SOUND VISIBLE

When electrical faults start to happen, partial discharges (PD) are often the first indication. PD's emit ultrasonic sound, which the NL Camera automatically locates.

Bad connection? Perhaps a faulty insulator? The NL Camera provides instant partial discharge analysis based on our sophisticated algorithms.



The NL Camera enables you to locate potential issues quickly from the ground during routine inspections. It can locate problems in power grids up to 100 meters away. The NL Camera is easy to use and can be operated with minimal training. The located partial discharges – together with the PD pattern identifying the type of discharge - are instantly superimposed on live camera view. Located events can be uploaded via built-in Wi-Fi to the AI-powered NL Cloud for further analysis. The NL Cloud has an automatic generation tool for partial discharge reports.

The NL Acoustic  
Camera

POWER  
GRID

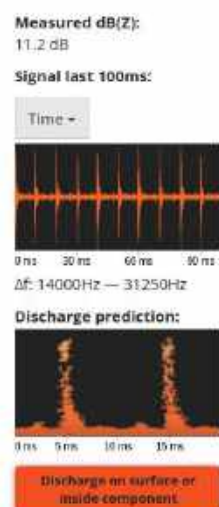
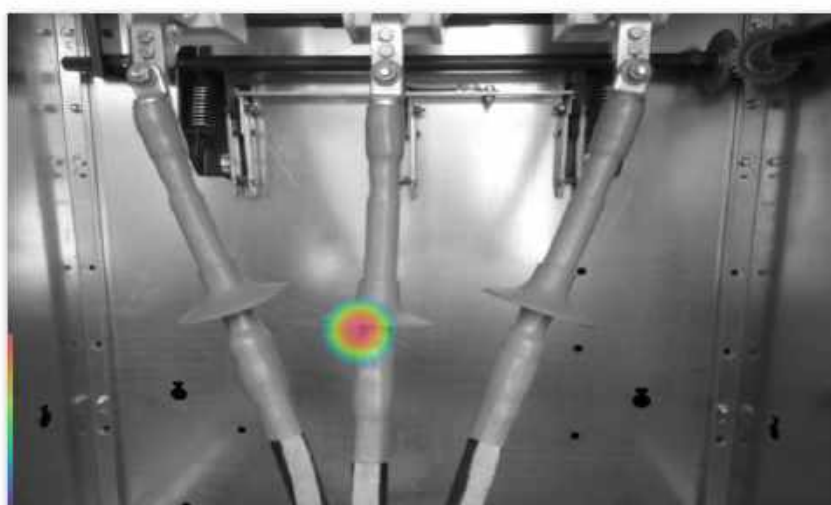
usecase

# EXAMPLES

## NOISY FLOATING DISCHARGE:



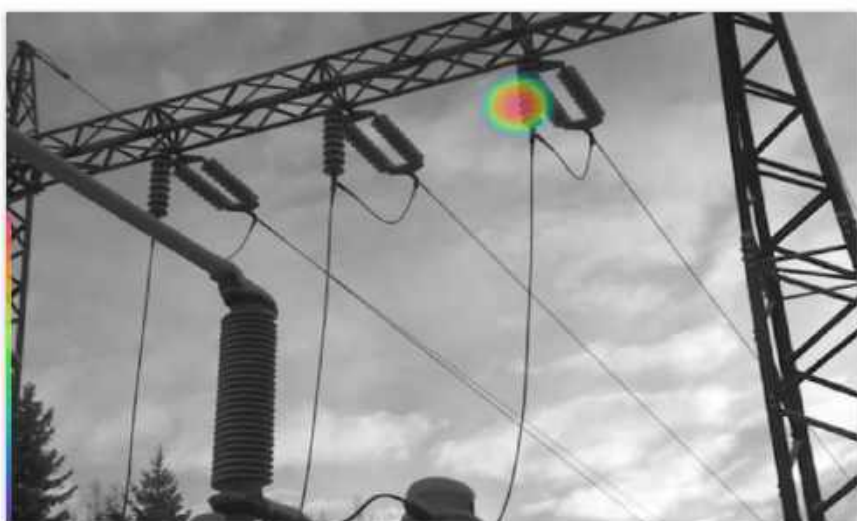
## SURFACE & INTERNAL DISCHARGE:



Range:

# EXAMPLES

## SURFACE DISCHARGE:



Measured dB(Z):  
29.3 dB

Signal last 100ms:

Time ▾



0 ms 30 ms 60 ms 90 ms  
 $\Delta f$ : 16000Hz — 31250Hz

Discharge prediction:



0 ms 5 ms 10 ms 15 ms  
Discharge on surface or  
inside component

## CORONA:



Measured dB(Z):  
14.8 dB

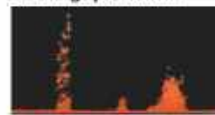
Signal last 100ms:

Time ▾



0 ms 30 ms 60 ms 90 ms  
 $\Delta f$ : 14000Hz — 31250Hz

Discharge prediction:



0 ms 5 ms 10 ms 15 ms  
Discharge into air



**CAN YOU LOCATE A  
SIGNIFICANT SOURCE OF  
ENERGY LOSS?**

THE NL ACOUSTICS CAMERA  
COMPRESSED AIR LEAKS USECASE



# MAKING SOUND VISIBLE

The NL Camera locates air leaks by listening, recognising and analysing sounds they emit. It is a lot more sensitive and accurate than the human ear and has a frequency range that extends to ultrasonic frequencies. A pressurised leak will cause turbulence which can be located using ultrasound. Finding air leaking into air using any other method is almost impossible.



The NL Camera enables you to locate potential issues quickly from the ground during routine inspections. It can locate problems in power grids up to 100 meters away. The NL Camera is easy to use and can be operated with minimal training. The located partial discharges – together with the PD pattern identifying the type of discharge - are instantly superimposed on live camera view. Located events can be uploaded via built-in Wi-Fi to the AI-powered NL Cloud for further analysis. The NL Cloud has an automatic generation tool for partial discharge reports.



# EXAMPLES

## AIR LEAK: THREAD SEALANT



Range (5.9 dB)

Measured dB(Z):  
56.2 dB

Signal last 100ms:

Time -



$\Delta f$ : 18000Hz — 31250Hz

Possible leak

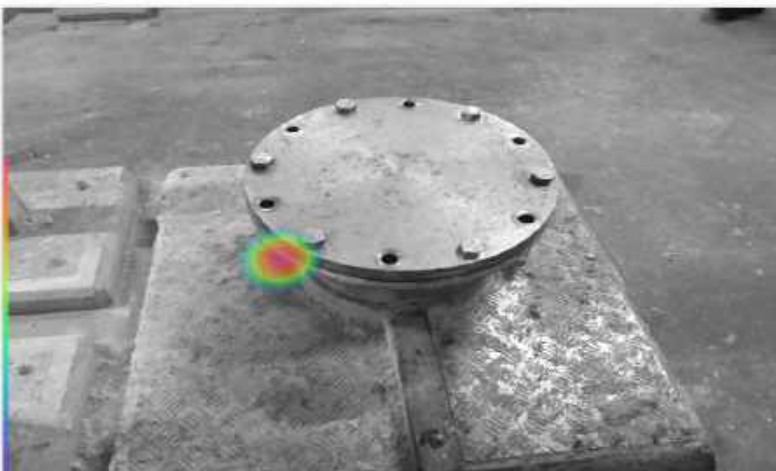
Distance: 5 m away

1.1 l/min

€ 199 /y

For product list visit...

## VACUUM LEAK: BAD SEAL



Range (3.1 dB)

Measured dB(Z):  
28.5 dB

Signal last 100ms:

Time -



$\Delta f$ : 26000Hz — 31250Hz

Possible leak

Distance: 1.0 m away

1.1 l/min

€ 13 /y

For product list visit...





# A VARIETY OF USES IN LIMITLESS INDUSTRIES



# THE NL CAMERA IS USED BY WORLD LEADING FIRMS



"NL CAMERA SAVED THE  
USERS 50% OF THEIR TIME"

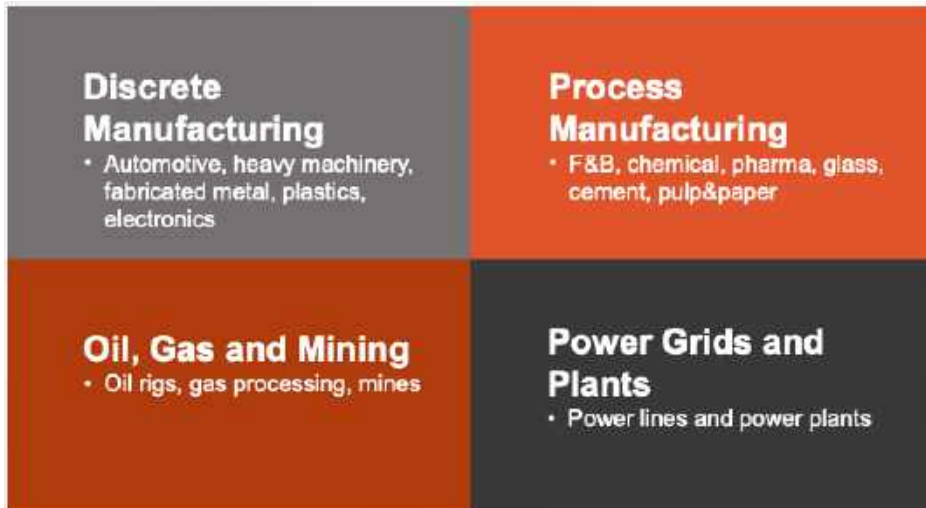
-ATLAS COPCO

TO BE INCLUDED IN  
THE **AIRBUS** SERVICE MANUAL  
FOR 2020

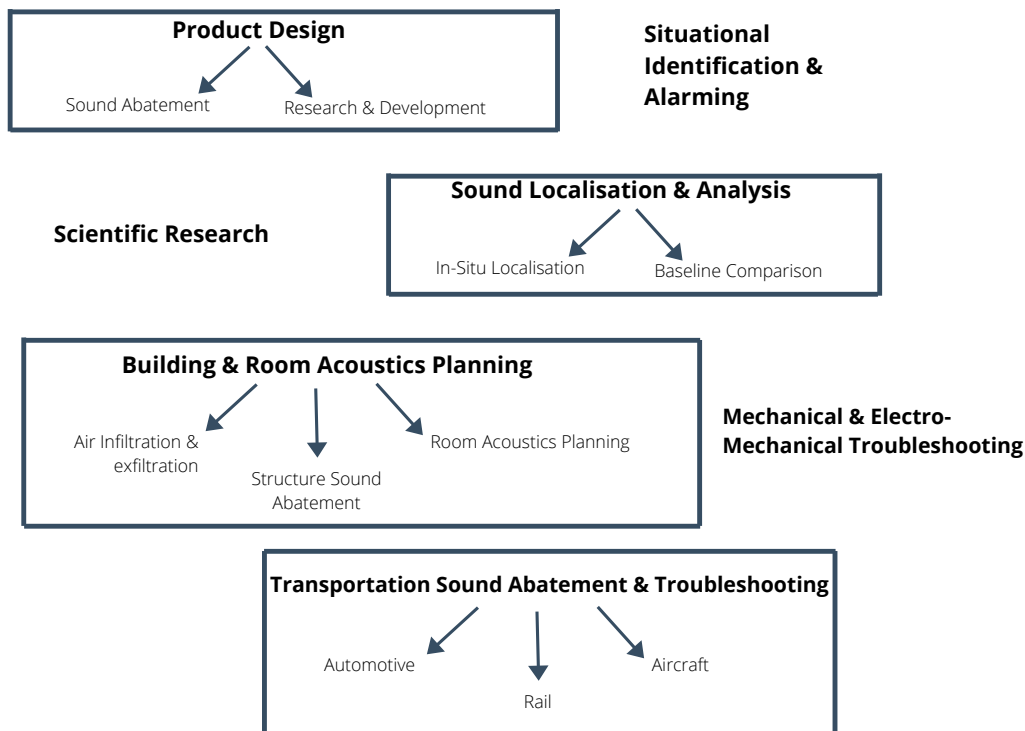
-AIRBUS



# PRIMARY APPLICATIONS



# SECONDARY APPLICATIONS



AND MANY MORE...

FOR MORE INFORMATION PLEASE  
CONTACT US



W

[www.hvdsa.com.au](http://www.hvdsa.com.au)

E

[sales@hvdsa.com.au](mailto:sales@hvdsa.com.au)

P

+61 404 286 848 or +61 404 254 883