I·care™ | 4.0 SINCE '04 |

PREDICTING THE UNPREDICTABLE

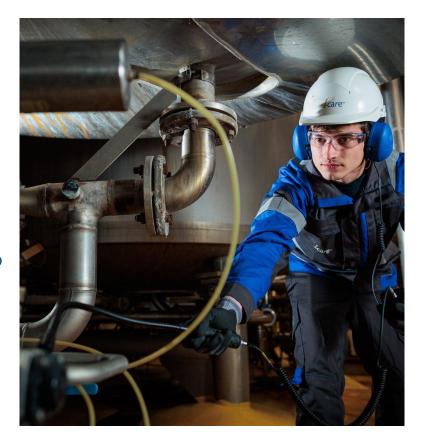# Leak detection

Sometimes small leaks can lead to big costs

Air leak detection

Sometimes small leaks can lead to big costs ! Many companies experience air leaks without being aware of it. In general, air leaks can take up to 20% - 40% of the total energy. Therefore, regular maintenance of a compressed air network can save a lot of energy (= money).

Ultrasonic leak detection is a technology based on converting ultrasonic signals (due to friction of air particle caused by the leaks) into audible frequencies. During this monitoring job, specific frequency bands (38-42kHz) are used so ambient noise is filtered out.

Even as air leaks are the most common, I-care can detect leaks from any gas (e.g. argon, nitrogen, hydrogen).

Air leak detection

Each leak will be identified with a leak card to be easily identified by the end-user. Every card will have a unique ID number, which is linked to a repair order.

This report is structured in such a way that each leak has a separate repair order with an overview and detailed photo.
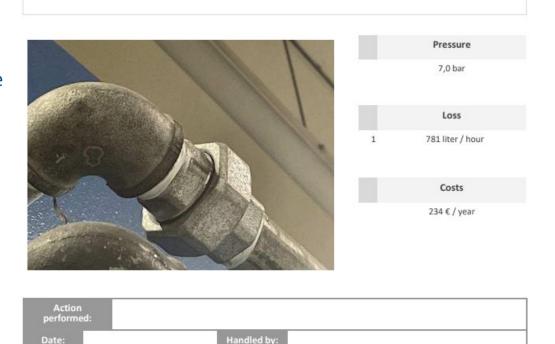
The report also includes a summary of all leaks and provides an overview of the size of the leaks and the associated flow and loss per area.

Air leak detection - report example

- Pressure
- Amount of air volume loss per hour
- €/$ lost per year generated by the leak
- Amount of energy loss estimation
- ID TAG for non-conformity
- Onsite report
- Service request creation in CMMS

Location description

Pressure
7,0 bar

Loss
1 781 liter / hour

Costs
234 € / year

Action performed:

Date:

Handled by:

A concrete example

Assume there are **35 leaks** detected. This is a combined loss of **221,491 l/h**, which will cost you **29.107 €/year**.

This requires an extra energy consumption of **194,047 kWh/year** which will produce **66.21 tons of CO2/ year**.

Calculation factors used:

- Electricity : 0,150 €/kWh
- Energy needed: 0,100 kWh/m3

Date of this example: 2020

Want to know more?
Contact us

Scan to visit
icareweb.com