

# CASE STUDY: RETAIL FOOD DISTRIBUTION

OCTOBER 2020

[www.ako.com](http://www.ako.com)

**AKO**

# Hypermarket in central Spain

## Challenge:

Control potential refrigerant gas leaks and optimize the energy efficiency of refrigeration installations.

### ■ CAPACITY

- Food distribution chain with 68 centers.
- < 1% market share in central Spain.
- Ranking # 26 in Spain.

### ■ PROJECT

**5 shops** in critical condition with a total of **2,000 m<sup>2</sup>** surface area facing the following challenge:

- Reduce direct costs of recharging refrigerant gas.
- Improve the efficiency of the refrigeration installation.
- Increased installation life.

### ■ PROBLEM

- Reduce the increase in the level of refrigerant gas leaks in their refrigeration installations with an average of **40%** in the 5 target stores within the project.
- Reduce direct costs of recharging refrigerant gas: Average gas load **250 Kgs** approx. Total cost of leaks: **€ 30,000/year**
- Increase the energy efficiency of the refrigeration installation.



Reliable information about the refrigeration installation.  
**Remove false alarms.**



**Search time decrease** for refrigerant gas leaks.



**Improve user experience** for people purchasing in their grocery stores.

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## Solution - Result:

At AKO, we proposed a system for the premature detection of refrigerant gas leaks in the 5 stores of the food chain.

### ■ SOLUTION

The **AKOGAS NDIR** direct refrigerant gas monitoring solution is capable of accurately and effectively detecting, without false alarms, leaks of less than 1 gr / h, indicating exactly when and where the refrigerant gas leak occurs. It allows you to **stop the leak at the earliest stage and repair it in the shortest possible time**, thus reducing the amount of gas leaked, repair times and costs, and maintaining an optimal level of refrigerant gas, contributing to greater energy efficiency within the installation.



Technical robustness of the solution.

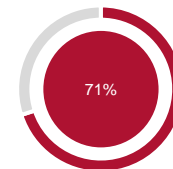


Reliability of the refrigerant gas leak detection system.

### ■ RESULTS

Installing a **Continuous System for Monitoring, Alerts, and Data Intelligence** on Refrigerant Gas Leaks gave the following results:

71%  
Leakage level reduction.



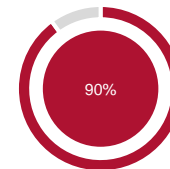
€ 14,000  
Cost reduction in 4 weeks.



€ 47,000  
Reduced operating costs.



90%  
Reduction of leak location time.



1 SEMANA  
System implementation



# Hypermarket in Spain

## Benefits of the solution

Our solution makes it possible to identify refrigerant gas micro-leaks (where, when, how much) so that the installation / maintenance company can repair them and thus reduce gas costs.

### BENEFITS



Refrigerant gas leak reduction by over 70%



Reduction in the number of maintenance interventions for repairing leaks.



Preventive maintenance thanks to automated reports on the situation of leaks in the installation.



Reduced repair time by pinpointing where leaks occur.



Increased installation life.

## AKOGAS NDIR

The continuous leak monitoring system provides reliable, fast and useful information that helps to reduce refrigerant gas leaks, detect them more quickly, identify the areas with the highest leak ratio, providing data for the execution of preventive maintenance (anticipate severe leaks).



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