



Who are we?

A pioneer in leak detection systems using indirect measurement methods, Matelex offers a reliable solution that fulfils the obligation to install a leak detector for installations containing more than 500 t CO₂ equivalent (i.e. 128 kg of R-404A).

Patented since 2009, the DNI [smart level sensor] exceeds regulatory requirements and provides constant monitoring of installations, significantly improving their energy performance.

With over a thousand DNIs installed and proven performance, Matelex offers its customers the chance to combine emissions reduction with overall energy efficiency, all with secure cold production.

CONNECTED REFRIGERATION

for environmental protection

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- Data measurement and collection
 - Analysis and monitoring
 - Energy efficiency
 - Emissions reduction
 - Online support



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Emissions reduction and energy management



SIGNIFICANT GAINS IN REFRIGERANT and simplified regulatory compliance

With measurements every two to three seconds, the DNI conducts full leak detection, continuously. Tested on a panel of well-adjusted positive and negative installations in superstores and hypermarkets, the DNI permitted a 79% saving in refrigerant compared with traditional detection (Ademe report of February 2011), with a return on investment of less than a year.

In the event of a leak, an alert is triggered and the operator is warned by local alarm and email so that action can be taken as quickly as possible. Installing a DNI reduces the frequency of leak detection (according to EU Regulation no. 517/2014 Art.4)

PERFORMANCE MONITORING and energy efficiency

By installing a DNI and its energy module, you can calculate not only the compressor's consumption, but also that of the condenser fans and the consumption of the pumps for the indirect circuits. The energy module also measures LP, overheating and the compressor discharge temperature.

The system calculates in real time the equipment's performance coefficient and stores it in memory, for example to compare the performance of two fluids in the case of retrofit.

Equipment containing fluorinated greenhouse gases in quantities of 500 tonnes CO₂ equivalent (i.e. 128 kg of R-404A) or over should be fitted with a leak detection system using indirect methods which, in the event of a leak, alert the operator or a maintenance company (EU Regulation no. 517/2014 Art.5).



FLOATING HIGH PRESSURE to save energy

The floating HP method modulates the High Pressure (HP) setting mainly in relation to the exterior temperature, in order to save energy.

SENTINELLE INTERFACE

Sentinelle is the DNI management website; you can visualise at a glance leaking installations and also changes in refrigerant charge. With this interface, you can monitor energy deviations and compare the performance coefficient of your installations with other DNIs linked to Sentinelle. With leak detection reminders and an alarm log, it is a comprehensive tool for monitoring and traceability for refrigeration installations.



WHAT TYPE OF RESERVOIR AND WHAT FLUIDS?

The fluid library integrated in the DNI contains over 120 fluids.

The DNI offers possibilities of assembly on all kinds of fluid reservoirs, including tilted horizontal reservoirs.

