



'Wasting energy costs the earth'

Department of the Environment

The Carbon Trust Energy Efficiency Best Practice Programme quotes:

"Even running small-scale refrigerated equipment could account for around half of your company's energy bill."

"A 15% loss in refrigerant gas could increase power consumption by 100%."

"Cost savings of 50% or more could be achieved by ensuring that the refrigeration plant is well operated and maintained. Also, improved reliability will reduce the chance of unplanned stoppages or business interruption."

"A temperature only 1 degree centigrade lower than necessary is costing you between 2 and 4% more to run the plant" and "a lower temperature than necessary makes it more likely that failure will occur"

"Monitoring is used to detect trends in the performance of the refrigeration system, expose developing problems and prompt timely intervention. It helps to maintain efficient operation and prevent unwanted interruptions to business through refrigeration failure."

"Monitoring the temperature inside the cooled space will reveal if overcooling is occurring or could indicate that the cooling capacity of the refrigeration system has been reduced."

- Controlling food storage temperatures when an EndoCube is fitted reduces refrigeration cycles by as much as 80% equates to a 66% reduction of start ups.
- A refrigeration unit running inefficiently means the condenser needs to work longer resulting in increasing the annual fuel usage cost to in excess of 180%
- A freezer unit with 3° - 4°C inefficiency will have to work almost continuously. An annual refrigeration expenditure of £2,000 on electricity equates to £1,000 of wasted energy.
- A refrigeration unit operating with a 2 degree level of Inefficiency can cost a company spending £10,000 pa on food stock IRO £1,000 in lost stock that would not have deteriorated in a unit operating at optimum efficiency – lost stock that should have generated more than £2,500 in earned income.

Solution:

The Kooltrak™ EndoCube data temperature monitoring system

Suitable for any industry with refrigeration including: hotels, restaurants, caterers, public houses, educational facilities, residential homes, health service, medical practices, vets, wholesale, food production & transport distribution

The Kooltrak™ EndoCube

Data Temperature Monitoring System

User friendly software enables even the most inexperienced computer operator to keep efficient documentation as per EU Directive EC852/2004 regarding permanent HACCP records. The system also helps to track the performance of all refrigeration units, 24/7, 365 days a year giving a cost effective solution to:

- **Save money**
 - on unnecessary fuel consumption
 - on efficient timing of defrost cycles
 - on unnecessary maintenance bills
 - with selected nightly idle period of plant
- **Reduce**
 - wear and tear of refrigeration plant
 - capital cost
 - losses in stock through incorrect temperatures
 - compressor `start ups`
 - annual energy cost
- **Establish**
 - an efficient working practice
- **Identify**
 - working practices that result in stock wastage
 - when your unit is working inefficiently
- **Increase**
 - longevity of refrigeration
- **Gain**
 - maximum benefit from your refrigeration and freezer units

Knowledge gained from the Kooltrak™ EndoCube system will instantly show when a unit is faulty together with the relevant data displaying exact times of breakdown, giving an undisputed audit paper trail.

The professional view:

John Hukku, Regional Meat Hygiene Advisor of The Food Standards Agency:

"All establishments handling food should have a data temperature monitoring system in place that takes away the human element of doubt and the Kooltrak system meets this requirement and is certainly not too expensive."

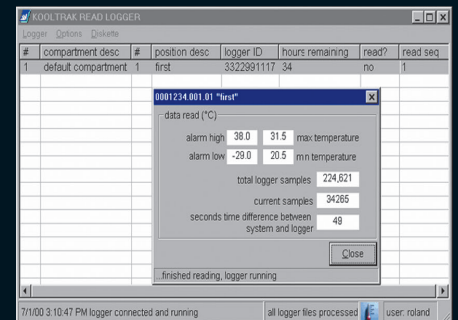
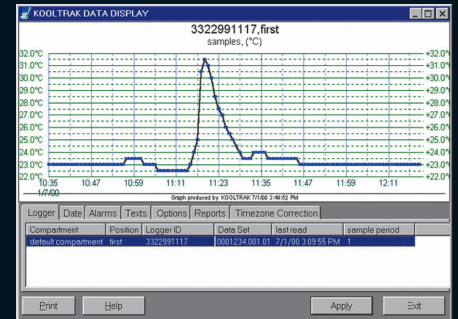
"A simple and cost effective solution for temperature recording"
Food Solutions magazine.

John Spall, Energy Manager, COFELY GDF Suez: "Post monitoring analysis after the fitting of the EndoCube yielded results ranging from approximately 15 - 50% savings with a calculated ROI (Return on Investment of 6 months)".

Joe Finn, Property Manager, Manchester Marriott Victoria & Albert Hotel:

"After the installation of the Kooltrak EndoCube system we achieved an ROI in approximately 6 months comprising of an impressive 42.84% reduction in annual refrigeration repair cost plus savings in energy cost and stock wastage".

The installation process is straightforward with minimal disruption.



KOOLTRAK STANDARD V1.6.11

- READ LOGGER**
Read and program loggers. Backup and restore logger data files. Display logger reading schedule.
- DISPLAY DATA**
Display selected logger data as a graph and produce printed reports.
- SETTINGS**
Define storage compartments and logger locations. Load and process remote logger data. Maintain and backup data. Select COM port.

Buttons: End, Help