

PIZZA SNACKS

  
**ENIGIN**

PIZZAS

PIZZAS

PIZZAS

SNACKS



Every time he opens a fridge

**it costs us the earth...  
...needlessly**

The solution is Chilled Unit Energy Savers  
Incredible products that can save up to **30%** on refrigeration

**CHILLED UNIT ENERGY SAVERS**

THE ENERGY SAVING BUSINESS

# How Does the Chilled Unit Energy Saver Work?

Refrigeration systems consume 20% of the world's energy! Unfortunately, despite many efficiency improvements, there is one feature of the refrigeration process that hasn't changed in over 100 years and it could be costing you up to 33% of the money you spend running your fridges and freezers. What is it?

## THE PROBLEM:

The 'refrigeration cycle' is the energy intensive process that produces the cooling effect in fridges. When a fridge detects that the temperature is rising above the desired 'set-point' it starts the refrigeration compressor and the 'cycle' begins. The cycle stops once the desired set-point is achieved again. In any given day a fridge may run through 100 to 500 cycles.

Regrettably, most refrigerators use air temperature as the signal to control the cycle (i.e. when the fridge starts and stops). But we don't buy fridges to cool air. We buy them to cool product, usually food and beverages. So we should use food temperature as the signal to control the refrigeration cycle. Would that make a difference?

Absolutely! Air temperature rises far more rapidly than food temperature so refrigeration cycles are more frequent than they need to be to maintain the required temperature. The result is excessive energy consumption because unnecessary cycles means unnecessary compressor start-ups and starting a fridge uses 3 times the energy that it takes to run a fridge.

It also follows that excessive refrigeration cycles will result in undue wear & tear, shorter equipment life, greater incidence of mechanical breakdown & call-outs and increased carbon emissions.

## THE SOLUTION:

The Chilled Unit Energy Saver solves a 100 year old problem! It is a non-toxic wax food simulant contained in a protective enclosure that mimics food temperature at 10mm below the surface. It is designed to fit easily around the refrigerators temperature sensor.

Once in place, the Chilled Unit Energy Saver transforms the fundamental operation of the refrigerator because it will now use food temperature as the signal to control its refrigeration cycle rather than changeable air temperature.

The effect is a more efficient refrigeration cycle, where the individual cycle lasts longer but the frequency is reduced by up to 80%. This can result in energy savings of up to 33% without any compromise to food safety and quality.

In addition, the dramatic reduction in compressor start-ups will increase the life of your equipment, reduce your carbon emissions and result in far fewer breakdowns and expensive call-outs.



## BENEFITS OF THE CHILLED UNIT ENERGY SAVER:

Savings of up to 33% Resulting in Swift Paybacks

Simple Installation with Zero Maintenance

Increases Equipment Lifespan, Reduces Breakdowns

Reduces Carbon Emissions

No Compromise to Food Quality and Safety - NSF Approved

## CASE STUDY

*A Chilled Unit Energy Saver was trialed at one of the stores of a patisserie chain in Australia called Miss Mauds. The trial yielded a phenomenal 43% saving\* and resulted in Chilled Unit Energy Savers being installed in every store with a projected financial saving of over \$10,000 per annum.*

\*Typical savings are up to 33% but this case study gives an indication of what is possible.



Protocol P235 NSF Approved



**CHILLED UNIT ENERGY SAVERS**