# **Fry**watcher®

# Electronic frying oil treatment system

## The Frywatcher

- Plug and play installation
- Suitable for oil fryers in all parts of the food industry, customising on request
- Maintenance free
- No chemicals, filters or powders
- Low energy consumption

#### How does it work?

The Frywatcher induces an electromagnetic field in the frying oil, controlling the shape and magnitude of the field. No part of the system comes into contact with the oil or food. One Frywatcher system can treat two side located fryers.

# **Technical specifications and safety**

Working with electromagnetic induction and without moving parts, the Frywatcher does not wear out during operation. Resin-sealed electronic parts safeguard it from splashing liquids. It is an investment over years and years, and if you change the fryer, you can use the Frywatcher for the next fryer again.

The Frywatcher works with 110 V / 230 V input voltage, with an energy consumption of less than 77 kWh annually. The output voltage has a non-dangerous level. The system does not require any maintenance. The signal cable is silicone sealed and suitable for up to 180°C. The signal module itself is made from stainless steel and designed for up to 210°C.

#### **Warranties**

Performance Guarantee: If you do not see any result or savings of a minimum percentage of 30% within the first 30 days, please contact your supplier.

The Frywatcher system carries a five-year warranty covering components and workmanship.



# Frywatcher<sup>®</sup>

Electronic frying oil treatment system

- ✓ Delays the blackening of oil
- ✓ Delays the generation of fumes
- ✓ Delays the necessity of changing the oil



# Frywatcher®

# Better oil quality enhances food quality - and reduces operation costs significantly.

# Reported by many users

√ Fewer residues in the oil

- √ Less smelly fumes
- ✓ Easier cleaning of frying pans
- √ Less oxidation of the oil
- √ Less discolouring of fried food
- √ Less oil in french fries

## Direct benefits for the customer

- Fried products absorb less oil which makes them more crispy and delicious
- Healthier fry by less production of acrylamides
- No unwanted colour change of foods

## Direct benefits for the chef

- Frying oil usage time will be extended, maybe even doubled!
- Less cleaning time during oil exchange
- Less wasted oil and fewer oil fumes
- Substantial energy savings:
  - 1. Oil temperature might be reduced around 5 to 10 degrees Celsius
  - 2. Heating of oil goes quicker between batches of fries
- Reduced oil viscosity supports smooth equipment operation
- Short term payback of investment

## Oil too dark, which shows in french fries.





Perfect baked fries should be of a golden colour.

# Frywatcher treats the water in the oil and nothing else.

Food - especially frozen food - contains much water that mixes with the fry oil, and is the base for all the unwanted effects like oil ageing, bad smelling fumes and the need to increase the oil temperature, which again leads to unhealthy anisidine content.

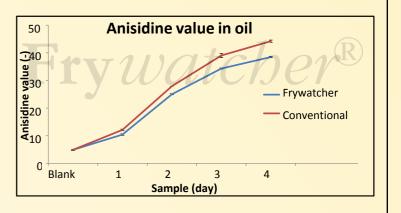
The graph shows that the Frywatcher works:

#### It reduces

- the water content in the oil, and so
- the need to increase the frying temperature, and so
- the formation of anisidine and Total Polar Matter.

# The Frywatcher effect

The Frywatcher induced electromagnetic field speeds up the evaporation of water. Less water in the oil increases heat transfer so a lower temperature can be used. The quality of fries increases, not only by merely treating the oil but also by lowering the frying temperature.



# **Tested & Proven**

Tests related to the acrylamide and total polar matter (TPM) content in fry oil. Monitoring over 14 days shows that untreated fry oil had a "breakdown point" with rapid downgrading after 7 days, while Frywatcher treated oil lasted up to 14 days with a much slower downgrading.

## **Acrylamide content in fries:**

Four comparative measurements per sample show a significant decrease of acrylamide content in Frywatcher samples due to less water content in the fry oil and even more decrease of acrylamide by using a lower frying temperature.

Scientific research report available on request.

