

# AXITHERM

## PASTEURIZATION / STERILIZATION OF VEGETABLES AND CEREALS



With the need to offer a growing range of vegetables and cereals, the mastery of heat treatment becomes a lever to improve product quality, develop innovative products and meet the economic needs of capacity gain.

In order to preserve all the organoleptic qualities at the harvest time, asparagus jars should be sterilized taking into account the maximum cooking value and the low thermal conductivity of the glass.

The immobilization of retorts during peak harvest for canned green beans, slows down the ability to sterilize.

By optimizing the process time without losing in sterilizing value, absorption of production variations is easier to manage.

Producers of cereals in doypack or cup form observe problems of agglomeration of the product at the exit of the retort.

By adjusting counter-pressures and agitation, the grains are better separated from each other. The preparations are much more appetizing.

Moreover, this management avoids leaks and deformations of the packaging.



### TEMPERATURE MEASUREMENT



3 ranges of loggers suitable for pasteurization and sterilization (accuracy : 0,15°C / T°C max : 140°C)

**ThinLOG** for your current applications :

- Metal can, plastic tray, jars
- Thermal mapping

**AXImicro** for all your demanding applications :

- Extreme miniaturization for all the thinnest packaging such as pouches
- Supports vacuum as strong pressures

**HeatLOG** for your standard and microwave Treatments and for bottles with narrow necks



### DEFORMATION MONITORING



- Probe for direct reading of deformation packaging
- Positions on all sides to study targeted defects
- Allows adjustment of process to optimize heat transfer or allow downgauging of packaging



### VACUUM MEASUREMENT



- Digital display Manometer/Vacuum gauge
- Qualifies capping and heat sealing injections (steam, gas)
- Measures the residual vacuum after treatment
- Check retort pressure

## SALE – RENT - ADVICE – AUDIT - TRAINING

### Product development and improvement

- Optimization of cooking without changing the desired stability
- Improved material yield

### Elimination of packaging deformations

- Identification of the origin of leaks, panelling and bombing
- Thermal process adjustment for new packaging and loading plans

### Energy savings on retort consumption

- Reduction of steam and compressed air exhausts
- Gain in cooling efficiency to reduce water consumption

### Productivity gains

- Reducing process time without compromising quality ( stability and organoleptic )
- Reduction of F0 and Cooking Value dispersion

### Study of retorts and tunnels microwaves

- Mapping, cold spot search and homogeneity control
- Validation of the sterilizing / pasteurizing value by heat penetration study

## METHODOLOGY

- **Selection** of the product / packaging to study ( the most penalizing )
- **Instrumentation** as needed : **temperature and pressure loggers, deformation probe,** control of valve openings
- **Monitoring and analysis** of the cycle to identify action levers
- **2 to 3 optimization tests** adapted to industrial constraints
- **Validation** of modifications on a full load

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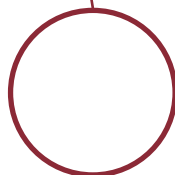
MANUFACTURE AND SALE OF TEMPERATURE LOGGERS  
 DEFORMATION PROBES  
 EQUIPEMENT RENTAL AND REMOTE ASSISTANCE  
 ON-SITE TECHNICAL INTERVENTIONS

## Your interlocutors

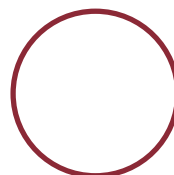
Axitherm was born in 2002 under the impetus of Alain Fournial, current manager of the society, to offer efficient services and measuring Instruments adapted to food industry.



**Alain FOURNIAL**  
 Ceo – Retort Expert



**Charlotte DAVID**  
 Administrative and  
 Finances manager



**Frédéric TERRIEN**  
 Production Agent



We work everywhere...  
 For all your applications



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