

# CMT Cookers-Mixers

Designed to preserve the organoleptic and nutritional quality of your products



TOGETHER BRING LIFE TO YOUR PROJECTS

ISO 9001  
BUREAU VERITAS  
Certification



# CMT, Cookers - Mixers

## Traditional cylindrical cookers



Cooker-Mixer  
1 500 liters

To preserve the high organoleptic and nutritional quality of your products, Pierre Guérin proposes a complete range of traditional but innovative cookers, derived from decades of experience in cooking and cooling of food ingredients and products.

### Background

Our traditional cookers-mixers are particularly suited to the preparation of sauces, cooked dishes, dairy desserts, pastry-mix, fruits mixtures, fruits with sugar, etc.

### Type of tanks

These cookers can be operated at atmospheric pressure but also under vacuum and pressure.

They are fully cleanable.

Heating-cooling circuits are designed for optimal thermal program.

Various options are available on request such as:

- cooking system heated by steam injection
- non-standard tank geometries, truncated tanks for example, to meet specific minimum working volume and/or thermal requirements.

### Mixing devices

In order to ensure a perfect homogeneity of the product and even temperature during heating, cooking and cooling phases, various agitation configurations are available depending on the application and product characteristics:

- single agitator fitted with one anchor (*directional arms*) or one three-blades **HTPG4**<sup>®</sup> impeller (*Single or multiple stages*) for low viscosity products
- a scraper-type agitator fitted with multiple directional arms, to allow for upward and downward flows
- a coaxial agitator device comprising one anchor and one three-blades **HTPG4**<sup>®</sup> impeller to avoid radial flows.

For the two last configurations, choice of co-rotative or counter-rotative motion will depend on the viscosity and fragility of the ingredients.

For shear-sensitive products, Pierre Guerin offers the benefits of the highly innovative agitator **Eole 5** which combines several three-blades **HTPG4**<sup>®</sup> impellers with two helicoid devices.

This unique design allows for minimum rotation speed that allows for optimum preservation of the product integrity while keeping an optimal mixing within the tank.

Scrapers located both sides of the helicoids ensure the renewal of the limit layer and enhance heat exchange.

These cookers thus allow for the performance of a complete range of unit operations:

- mixing operations including dilution, dissolution, homogeneous holding, dispersion and emulsions
- thermal treatments: cooking, pasteurization, sterilization, cooling
- incorporation and dosing of liquid and powder ingredients.



Coaxial agitator  
with saw disc on  
the bottom

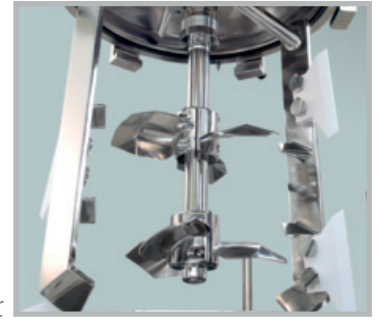


Eole 4

## Scraping devices

Several designs of scrapers are proposed, all of them providing the following functionality:

- thermal exchange through the renewal of the limit layer on side-walls
- reduction of product-loss during discharge
- optimum cleanability (*no shadow surfaces*)
- absence of product deposits on internal surfaces of the tank.

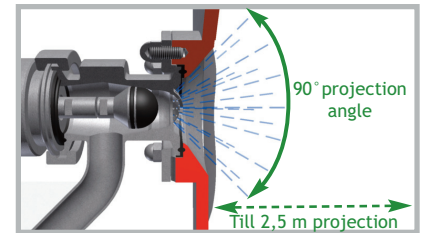


Scrapers  
on anchor

## Cleaning devices

In order to achieve adequate cleaning performance, a wide range of CIP devices are made available on this **CMT cookers** series which are carefully selected depending on product and recipes (*sticky product, fat content, etc.*).

These devices include: static or rotative spray balls and **flush wall-mounted CIP** device.



Pneumatical Wall Cleaner

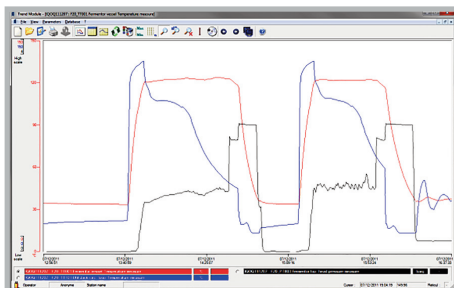
## Contrôle commande Neptune avec module Batch

The **Neptune™ SCADA Software**, implemented on simple or client-server architecture connected with PLC's to control all phases and process parameters.

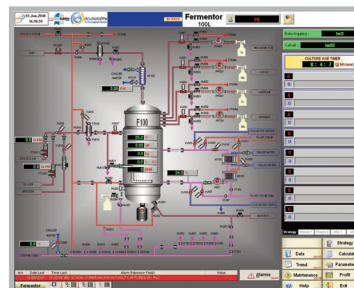
It also provides the equipment User with an extensive range of supervision and data-logging functions including:

Synoptic, Parameter editing, Alarms management, Profiles, Trends, Calculations, Strategies, Audit-Trail, recipes management and Batch report, User's Access, "Off-Line data", Maintenance, through a user-friendly and intuitive interface.

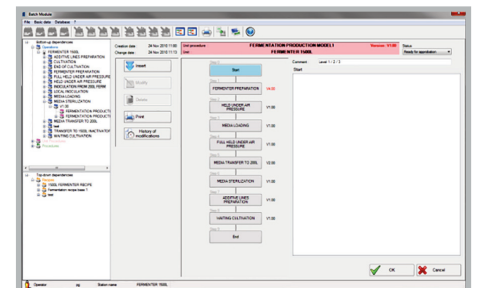
This highly robust and reliable system has been designed to control complex processes with single or multiple equipment items in a pilot or commercial production environment.



Trend Module



Synoptic Module



Batch Module

- user-friendly intuitive interface for an installation with single or multiple equipment items
- simple architecture or Client / Server (*distributed architecture*)
- Audit-Trail with full traceability of all events and data in a standard database; the database can be local (*e.g. on the control computer*) or remotely located
- standard Batch report or customizable using the Crystal Report tool
- CFR21 Part11 compatibility, development, tests and documentation in accordance with the GAMP5 Guide-Line.

## Testing possibilities

We offer our clients the benefits of a complete range of testing equipment including lab and pilot units to support your development and scale-up activities at your site or in our laboratory.

Pierre Guérin has also the capability to qualify the rheology of your products by performing viscosity and various others analytical measurements.

An international presence to bring life  
to your project and support your installed base



**PIERRE GUERIN**  
TECHNOLOGIES

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