

CONTITHERM

Cup Filling and Sealing Machine



Hygiene Standards

hygienic, ultra-clean

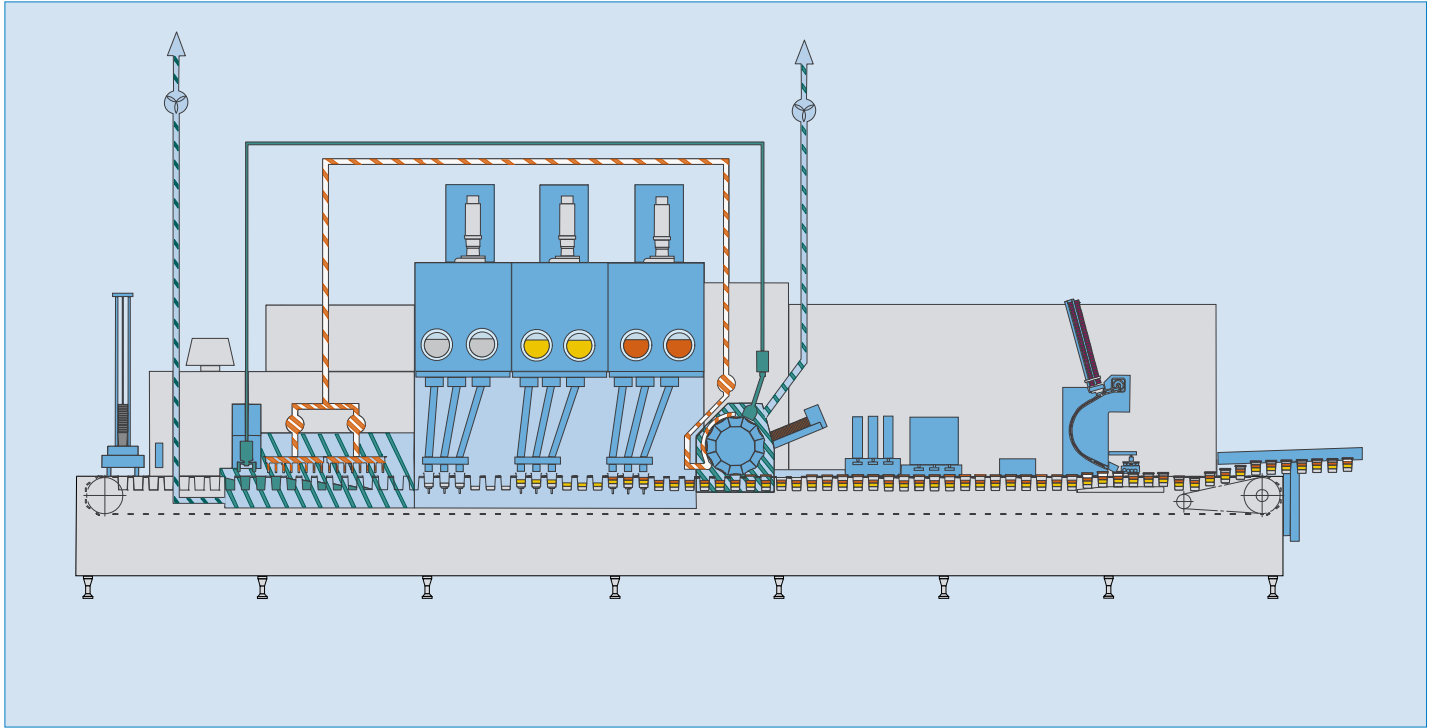
Machine Types

CT 82, CT 123

COMPLETE LINE

We offer the project design of a complete packaging line on the CONTITHERM basis comprising:

- cup buffer and feeding systems
- tray packer, integrated or separate
- tray erector
- palletizer



Machine overview CONTITHERM 123 P

Machine Concept

The CONTITHERM has the following features:

- continuous motion cup transport
- balcony construction separating the mechanics from the product area
- compact design
- ergonomically optimized machine design
- controlled sterile air supply in the filling area up to the sealing station
- doors with large windows providing unrestricted observation and full accessibility
- packaging material sterilization with safe germ reduction

Format Flexibility

upon request

Standard Equipment

All parts coming into contact with the product and cleaning agents are manufactured from materials approved for foodstuff.

The standard CONTITHERM consists of:

- cup de-stacker
- cup control, sensing "cups available" and "double cups"
- CIP filler with pistons having no seals. Steam sterilizable at 121°C
- lid applier
- sealing station
- cup discharge
- integrated, low-pressure sterile-air preparation
- machine runs from left to right when viewed from the operator side
- monitor-assisted machine operation (M.M.I.)
- hygiene standard: hygienic

Optional Equipment

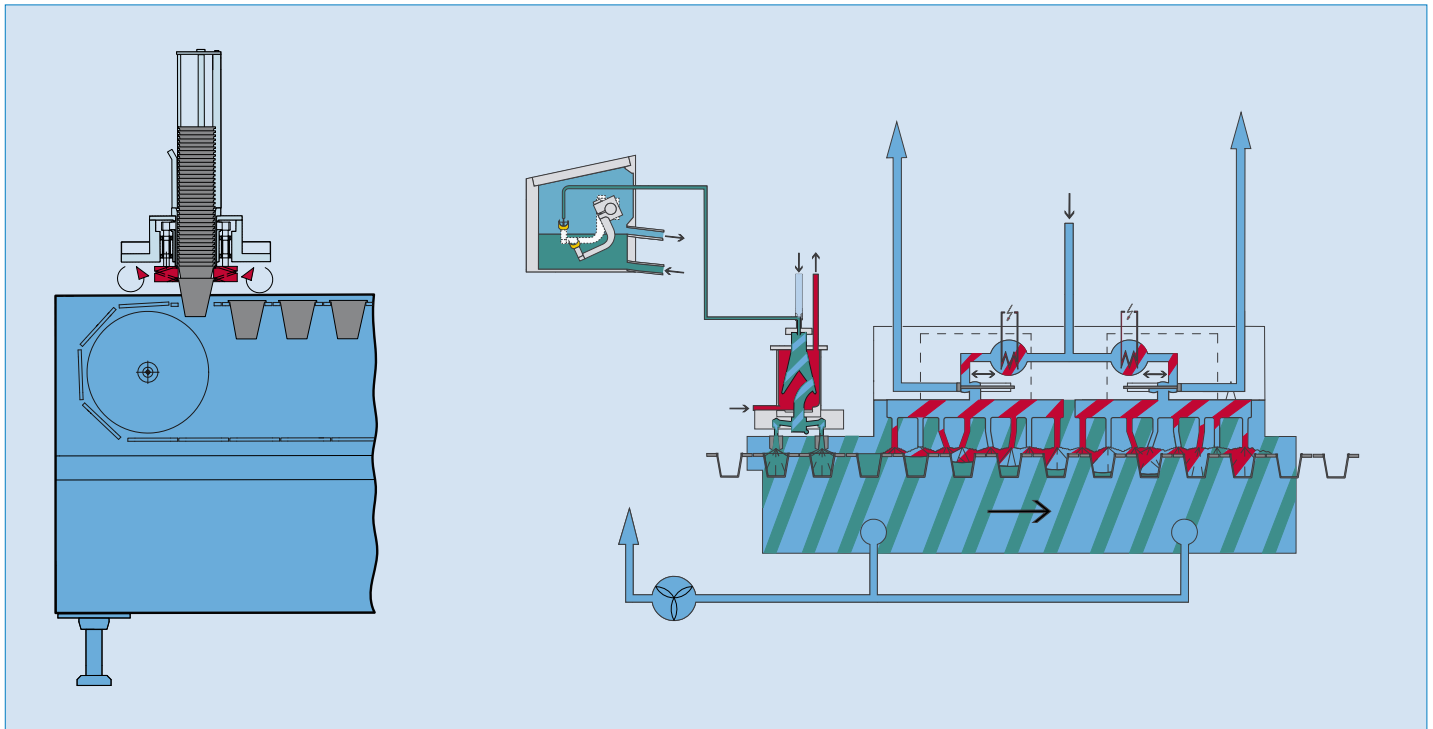
- packaging material sterilization by means of H₂O₂ or UV-C
- dust and particulate extraction
- additional dosing units for multi-layer filling
- divided product hopper for assorted filling

- special product presentations upon request
- ink jet printer
- cup leakage test device
- snap-on lid applier
- cup discharge to integrated packer or conveyor belts
- design with servo drives
- operation data evaluation system

Cleaning

The CONTITHERM is equipped with program-controlled CIP cleaning and, depending on the machine design, sterilization. OYSTAR Gasti offers the complete cleaning system and necessary controls, for connection to either a dedicated CIP set or an existing central system, with a flow rate 25 to 30 m³/h at 3 bar overpressure. The cleaning includes the entire product feeding parts, from the product supply valve interface to the dosing system, as well as the cup conveyor and cell plates areas.

Deposits are removed from the H₂O₂ evaporators via the implementation of acid cleaning. Straightforward external cleaning thanks to the smooth machine surface.



Cup de-stacker - scroll type design

Cell Plate Transport

- 4 lanes, continuous motion
- stepless adjustable output

Hygiene Standards

The CONTITHERM complies with the following hygiene standards:

- hygienic (standard)
- ultra-clean/aseptic for acid products
pH < 4.5 (option)

The product area/clean area is completely separated from the drive elements. Controlled sterile air supply and sealing of the product area/clean area avoid re-infection during production.

Operation

- ergonomically optimized machine design requiring minimum operating personnel
- clearly structured operation from one side with optimal accessibility
- all operating functions are possible without the use of platforms
- short set-up times when changing products and packaging

Cup sterilization

Cup Buffer and Feeding Systems

- cup stack feeding via directly mounted cup buffer magazine
- feeding systems from the upper or ground floor

Cup De-stacking Device

- rotating scrolls
- gripper system (option)
- electronic cup sensing
"missing cup/double cup"

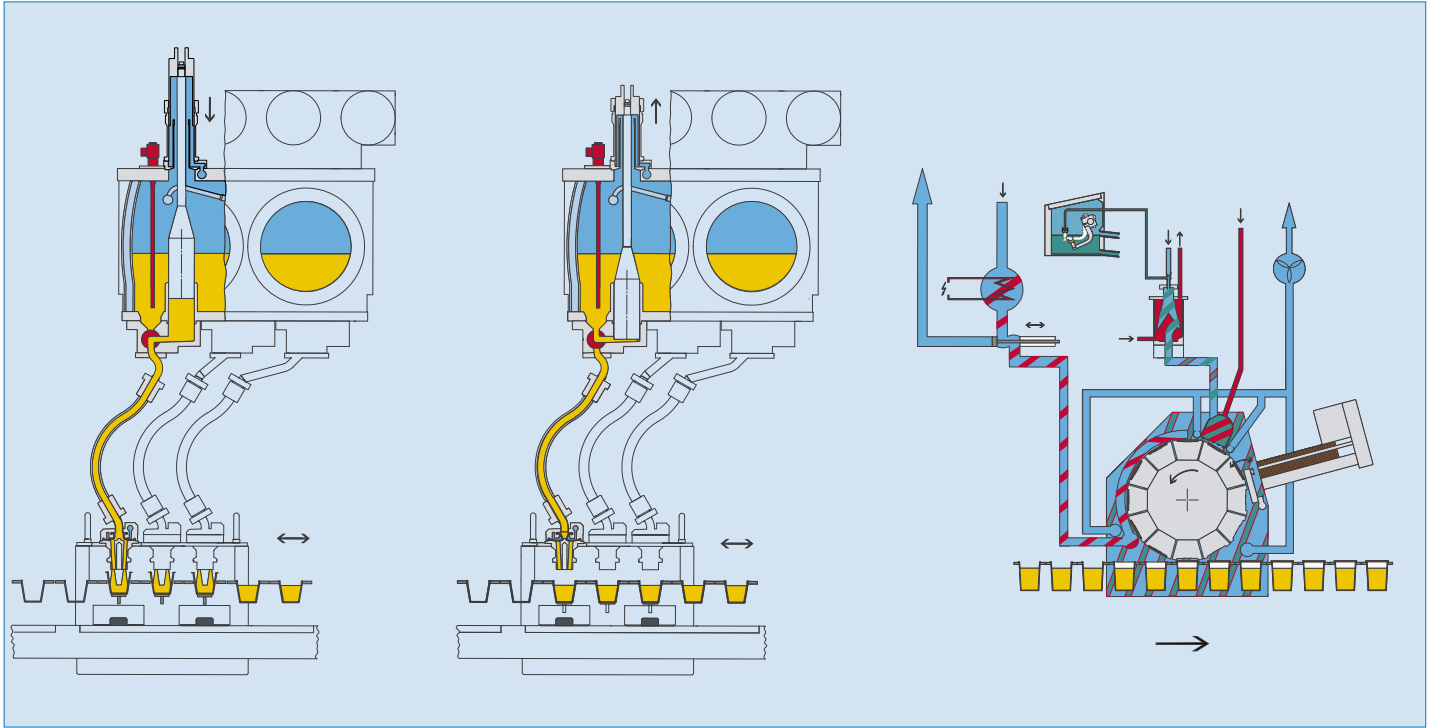
Packaging Material Sterilization

a) with H₂O₂ up to 10⁵

- cyclic dosing of H₂O₂ with alarm function
- sensor for "ladle is filled" and "ladle is empty"
- evaporation of H₂O₂ in a specially designed, double-walled heat exchanger
- spraying H₂O₂ laden air into the cup
- cup drying using hot sterile air, with by-pass during machine stop
- sterilization process in an enclosed chamber with controlled evacuation of H₂O₂ laden air

b) UV-C High-Pressure Sterilization System

- UV-C high-pressure emitters, in stainless steel housing with quartz filter
- reflector closing system, automatically controlled at machine stop
- stainless steel switch cabinet with all electric components
- air cooling system including piping, ventilators and volume flow control
- safe and reliable sterilization thanks to long service life and UV-C intensity measurement device
- multiple radiation intensity compared to the traditional UV-C low-pressure emitters



Filler

Filler

- mechanically driven from the main drive
- pistons having no moving seals
- extremely high weight accuracy due to pistons working within the product
- steplessly adjustable piston stroke
- individually calibrated fill pump pistons
- quick change filling nozzles
- string cutter nozzles for products containing particulates
- tube type nozzles for liquid products
- cup lifting and lowering

Option:

- servo drives for filler, cup lifting and lowering
- individual lane adjustment of the dosing pumps
- divided product hopper for assorted filling

Fill Products

The CONTITHERM is able to fill liquid to pasty products, with or without particulates, e.g.

- fermented milk products
- cream
- single and multi-layer desserts
- special product presentations upon request
- aerated products
- fruit juice
- fruit preparations/sauces
- rice/semolina pudding

Lid sterilization

Fill Volumes (in cm³)

Pre-filler: 12.5 – 125, 30 - 300

Main filler: 30 – 300, 50 – 550

Post-filler: 12.5 – 125, 30 - 300

other filling volumes available upon request

Closures

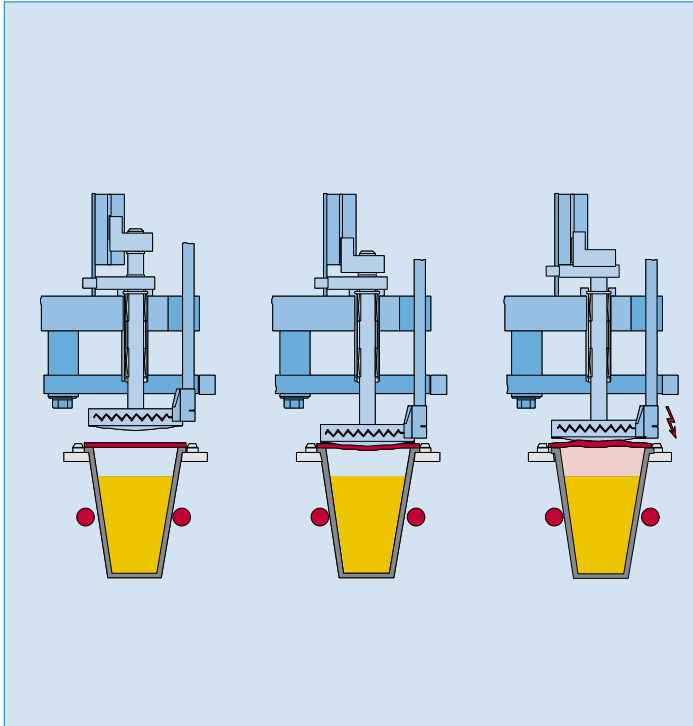
The following types of closures can be used:

- diaphragm lids made of aluminium and/or plastic material, monofoil
- pre-formed, heat sealable lids made of plastic material
- re-closable lids made of plastic material (snap-in or snap-on lids)

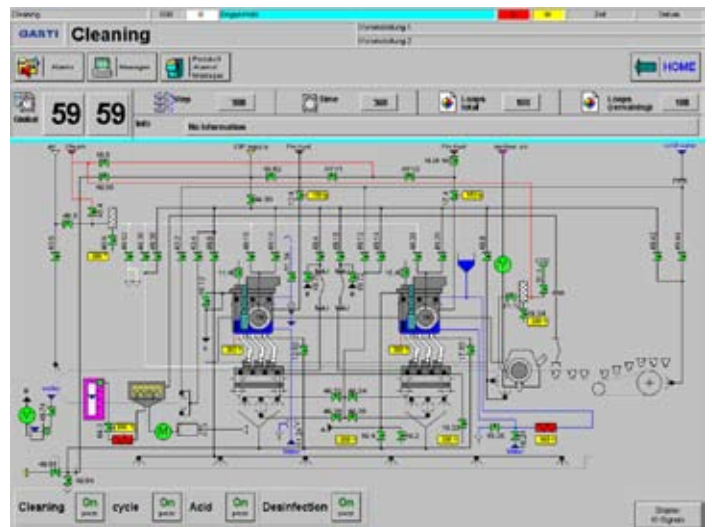
Technical data CT 82, 123

pre-filler	12.5–125 cm ³ , 30–300 cm ³
main filler	30–300 cm ³ , 50–550 cm ³
post filler	12.5–125 cm ³ , 30–300 cm ³

Machine type	Number of pumps	Output (cups/h)	max. cup ø	max. cup height
CT 82	8	19,200	95 mm	130 mm
CT 123	12	30,000	95 mm	130 mm



Cup leakage test device



Principle control set-up

Lid Applying Station

- quadruple lid applier (wheel principle)
- designed for H₂O₂ or UV-C lid sterilization system
- reloading of lid magazines without stopping the machine

Heat Sealing

- mechanical support of the cell plates
- flexing sealing heads
- individual temperature control with alarm function
- raising of the sealing heads at machine stop

Cup Leakage Test Device

The cup leakage device works using differential measurement of the lid deflection by creating overpressure in the head space

- thermal (by heating the headspace in the cup)

alternative:

- mechanical (by squeezing the cups) or in combined version (thermo/mechanic)

If there is no deflection of the lid, the cup is identified as being airtight and rejected.

Date Coding

integrated ink jet coding system

Cup Discharge

- cup lift out and mechanical transfer onto a discharge conveyor (separate tray packer, sleeve, etc.)
- combination with an integrated tray packer
- discharge of reject cups, depending on system:
 - as an individual cup
 - in a complete tray

Operation

State-of-the-art visualization system with various authorization levels.

Displays for:

- production
- cleaning
- recipe management
- chronological listing of alarm and message texts
- operation data registration (optional)
- adjustment of the servo-cams at the filler area by means of visualization system (optional)

OYSTAR Gasti Delivery Program

- Filling and sealing machines for pre-made cups
 - Continuous and intermittent operation
 - Flexible in size and equipment
 - Multi-layer filling
 - Hygiene standards: standard – hygienic – ultra-clean – aseptic
- End-of-line packaging equipment
- Mixing and feeding pumps
- Second-hand machines

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