PROVISUR® TECHNOLOGIES

Cookers

And applications

Lutetia®

Cooking, Drying, Smoking, Chilling, Pasteurization

Precision, Performance & Profit




Dry and ste

Technical principle

- **Dry and steam cooking:** Strong ventilation ensures perfect exchanges; process speed, uniform temperatures, quality of finished products, whatever the type of cooking (dry, humid, mixed)
- **Air power:** guarantee of the uniformity and the performance through the drying smoking or cooking application
- **Energy solutions tailored to your possibilities and your applications:**
  – Integrated thermal exchangers (Steam or electric)
  – Low pressure steam, from factory network or independent Lutetia steam generators
- **Steam generators:**
  – 18 kW
  – 24 kW
  – 36 kW
- **Other accessories:**
  – Trolleys
  – Smoking stick
  – Trays, stainless steel grids


Steam manifold


Steam circuit


Resistances


Turbine


Ambiant probe


Core probe

Technology and products

Cooking gives specific sensory properties to a product, in terms of appearance, texture (tenderness, succulence, cohesion, etc.), flavour and nutritional properties. It also allows numerous enzyme reactions to be inactivated and reduces the microbiological content of the products.

The system is based on the circulation of coolant fluid in a temperature-controlled cooker.

Steam cooking: injection manifold diffuse low pressure steam directly into the cooker, with an increased exchange coefficient at the product/steam interface. Steam provides latent condensation heat to the product.

Dry cooking (up to 180°c depending on configurations): a tubular exchanger (or a range of resistances especially in the case of rosting) in the chamber produces dry heated air.

Sous-vide cooking consists of cooking a previously vacuum packed product at a relatively low temperature. The product is pasteurised in its final packaging and its cooking performance and yield are optimised.




am cooking

Advantages

- **Cost-effective**, improved yield by controlling temperature, humidity and the versatility of the system,
- **Fast**, convection and diffusion mechanisms accelerated through optimisation of aeraulics,
- **Designed for you** as it is tailored precisely for your factory, the system being modular and adaptable depending on your constraints and your configuration,
- **Versatile**, as efficient in dry and humid cooking and in all situations in between. The cookers can be used for defrosting, smoking, chilling, etc.
- **Safe and hygienic**, reduced risk of cross-contamination, simplified quarantining of batches. Uniformity of processing and precise control of parameters reduce risks of non-compliance. Control and monitoring of pasteurisation,
- **Uniform**, thanks to optimised aeraulics,
- **Regular**, from one cycle to another, through the control of ventilation, temperature and humidity and the control-command of the process.





Drying an

Technical principle

- **Drying: fast and uniform**
  High-power ventilation allows surface drying of products and quickly removes damp air.
- **Smoking: hot and cold**
  Optimum drying and tailored ventilation accelerate smoke penetration to obtain products adapted to client's tastes. Humidity is continuously controlled. Multiple types of generators are available.


Steam circuit


Pneumatic circuits

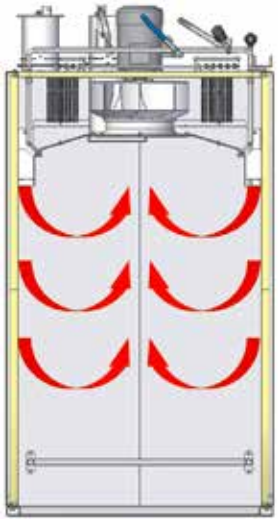

Ambiant probe


Steam manifold


Resistances


Turbine


Hygrometer



Technology and products

A moderate **heating** without cooking accelerates chemical reactions (e.g nitrification, mass transfers) & biological phenomenons (e.g starters, enzymes). It is carried out at temperatures lower than the coagulation temperature for proteins (around 55 °C).

Drying enables food to be dried by extracting surface humidity by air whose temperature, aeraulics and humidity are managed.

Smoking carries out transfers of matter between solid and smoked food, multiphased mixing. It gives products:
– A specific colour,
– A specific flavour
– Improved preservation.




d smoking

Complementary advantages

Text about drying and smoking in Tumbler

Lutetia smoke generators

Log generator
Suitable for all kinds of smoking, operating in recycling, it carries out intense hot and cold smoking. Smoking begins as soon as it is started and produces cold smoke.

Woodchip generator
With or without recycling, for dense smoke and fast, intense smoking.

Sawdust generator
Still the traditional and versatile smoking method.

Liquid smoke generator
The solution to smoke toxicity, fire safety, cleaning and environmental problems.




Chilling

Chilling

- **Rapid chilling units**
  – Capacity 1, 2, 3, 4 and 6 trolleys
  – Pre-chilling by showering (option)
  – Chilling by stainless steel exchanger with with glycolated water
- **Ventilation:**
  – 1 turbine Ø 630 (stainless steel),
  – Driven by 5.5 kW motor per trolley.
- **Cold:**
  – 1 stainless steel battery tube, stainless steel fins 20 kW per trolley,
  – Battery powered by glycolated water (factory network) with "set" of regulators supply by ourselves, positioned either in the high part or on the cooker panel.
- **Showering:** as well as space savings, integrated showering by water spray guarantees you controlled and fast pre-chilling.
- **Fast chilling:** high powered ventilation and a system of glycolated water heat exchangers, quickly chill cooked or smoked products, for optimum health safety.

Rapid chilling stainless steel battery tubes

Turbine

lateral chilling

glycol exchanger for water ...

Chimney

showering

Processing technology at your service

The PIC (Provisur Innovation Center) contains all of our most recent equipment and procedures, equipped with the latest technological advances. Through its understanding of the meat profession, the laboratory's team of food scientists and technicians can offer you the best solutions for the profitiability of your tool and the optimisation of the quality of your products. The most common themes are:
– Process development
– Machine and process validation for customers
– Optimisation of manufacture
– Innovative technology
– Resolution of industrial problems




Technology, Design & Engineering

Assembly advice

- Ground slope should be 5 mm (0,2") /metre (descending towards the gutter),
- Facade: available passage; L 1170 mm (46,1"), H 2125 mm (83,7"),
- Standard trolley dimensions: 1000 mm (39,4") x 1000 mm (39,4") x 2050 mm (80,7")
- Useable interior lengths: A - 270 mm (10,6")

Process Monitoring and Performance

Supervision has been created to give you total access to the data recording. Some data points to collect include:

- Batch number
- Date and starting time
- Name of operator with different access degree and automatic display by mail
- All alarm or fault to operator with automatic display by mail in case of fault
- Temperature
- Automatic end cycle report
- Temperature monotoring
- Pasteurization value

Data is available to be viewed on phone, tablet, or PC. Possibility of direct connection to SCADA through Eternet IP protocol. Remote assistance with equipment connected to the ethernet network of the factory.

Connectivity 4.0

Aftermarket service

Lutetia has extensive stock of spare parts and experienced service technicians always available. Support and spares parts can be supplied without delay.

R & D center

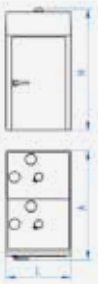
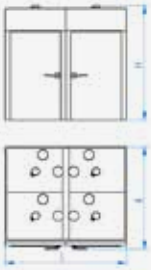
The Provisur Innovation Center (EU) is the main food process research tool for Provisur. With a complete range of processing equipment our most advanced technologies give our customer the best solutions for their process and product. A full team for process development and validation, investigation and resolution of manufacturing issues.

Design office

With a team of experienced engineers dedicated to design and development, Lutetia is well placed to maintain position in cookers performance and technology:

- Safety and hygienic design advances
- Integrating chambers into food manufacturing processes
- Optimisation of production methods
- Design improvements and new applications

A large choice of models

					Heat power			Electrical power, excluding heat	
		A: Overall overhang 1 door (mm/*ft*)	L: Width (mm/*ft*)	H: Overall height (mm/*ft*)	E/EV (kg/*lb* steam/h)	PFE steam (120°C @8bars) (kg/*lb* steam/h)	PFE electrical (120°c) (kW)	E (kW)	EV/DGV/PFE (kW)
INLINE 	1 trolley	1.330 *4,36*	1.500 *4,92*	3.000 *9,84*	30 *66*	50 *110*	27	1	4
	2 trolleys	2.430 *7,97*	1.500 *4,92*	3.200 *10,50*	60 *132*	100 *220*	54	1	7
	3 trolleys	3.530 *11,58*	1.500 *4,92*	3.200 *10,50*	90 *198*	150 *331*	81	1	10
	4 trolleys	4.630 *15,19*	1.500 *4,92*	3.200 *10,50*	120 *265*	200 *441*	108	1	13
	5 trolleys	5.730 *18,80*	1.500 *4,92*	3.200 *10,499*	150 *331*	250 *551*	135	1	16
	6 trolleys	6.830 *22,41*	1.500 *4,92*	3.500 *11,48*	180 *397*	300 *661*	162	1	19
	7 trolleys	7.930 *26,02*	1.500 *4,92*	3.500 *11,48*	210 *463*	350 *772*	189	1	22
	8 trolleys	9.030 *29,63*	1.500 *4,92*	3.500 *11,48*	240 *529*	400 *882*	216	1	25
	10 trolleys	11.230 *36,84*	1.500 *4,92*	3.800 *12,47*	300 *661*	500 *1.102*	270	1	31
SIDE BY SIDE 	1 + 1 trolleys	1.330 *4,36*	3.000 *9,84*	3.200 *9,84*	60 *132*	100 *220*	54	1	7
	2 + 2 trolleys	2.430 *7,97*	3.000 *9,84*	3.200 *9,84*	120 *265*	200 *441*	108	1	13
	3 + 3 trolleys	3.530 *11,58*	3.000 *9,84*	3.500 *11,48*	180 *397*	300 *661*	162	1	19
	4 + 4 trolleys	4.630 *15,19*	3.000 *9,84*	3.500 *11,48*	240 *529*	400 *882*	216	1	25
	5 + 5 trolleys	5.730 *18,80*	3.000 *9,84*	3.500 *11,48*	300 *661*	500 *1.105*	270	1	31

Lutetia SAS
Z.A. du Pré de la Dame Jeanne
60 128 Plailly - FRANCE

Tél . +33 (0)344 607 000
Fax. +33 (0)344 607 001

www.provisur.com
Lutetia.info@provisur.com