

Tumblers

Innovations & Applications

Lutetia[®]

Curing – Tumbling – Marinating
Defrosting – PROactivation[®]





Experts in Tumbling,



Consistent quality and production

Massaging/Tumbling under vacuum – a process patented by Lutetia.

Lutetia tumblers are characterized by:

- A unique helicoidal baffle, with rotation suitable for all products
- The use of continuous vacuum
- Fully automated cycle control



Massaging/Tumbling innovation

Through our understanding of the interaction between vacuum, temperature, mechanical action and time control, our customers gain undisputed benefits in product quality and process efficiency.

- Fast and homogeneous distribution of ingredients, from the product surface right to its core
- A helicoidal baffle for better distribution, without overprocessing
- Absorption of brine into fiber core with a vacuum enhanced biokinetic mechanism
- Accelerated fluid exchange the product surface

Optimization of protein functionality:

- The protein-water bond is strengthened
- Soluble proteins are extracted from the core to the surface for optimal binding functionality
- Color development and stability is improved



Produce low salt and clean label products with Lutetia technology

Customers are demanding products with “less salt” and “cleaner labels”.

Lutetia has developed two methods to compensate for reduction of ingredients using Thermoactivation and PROactivation® technologies.

Lutetia solutions:

- Maturation: Acceleration of the biochemical kinetic reaction.
- Water binding: Extraction and solubilization of protein in the muscle core, improving the link between salt and protein, better water activity and meat structure.
- The process maintains a self stable gel that ensures sliceability.





Curing and Marinating

Your choice for a single or double jacket tumbler will depend on:

- Your room/location
- Your product
- Your application

Inspection door

Provides easy access for cleaning and total inspection of the drum, including the back of the baffle.

Can also be used with elevated conveyors for automatic loading.

Double jacket

Unique double jacket design with isolated coils ensures heat transfer optimization and prevents potential thermal fluid contamination.



Applications

- Curing/salting
- Marinating
- Defrosting
- Proactivation
- Drying
- Smoking
- Cryo cooling/freezing/coating
- Cooking

Structure, hygiene and cleaning

With safe and thoughtful mechanical structure, our machines meet or exceed global safety and hygiene requirements.

Radio Frequency probe



The Lutetia probe is in direct contact with the product allowing complete process control including rotation speed, vacuum level and meat temperature.



Maximum flexibility with any application

PROactivation & Drying

A unique, innovative way to process product

The patented PROactivation process, with control of vacuum, temperature and action, results in improved flavor, color and accelerated maturation. This cutting-edge technology improves overall yield and quality for your cooked products, such as bacon or ham, as well as clean label and low salt formulations.

It also gives exceptional results on dry cured products like "Schwarzwälder Schinken", prosciutto, coppa and bresaola with a significant reduction in drying times – all within a compact footprint.

To get more yield out of every bacon belly, consider of using a Hoegger press prior to slicing.

Lutetia Patent N° 99/08776 – 10/52021 – 12/62278.



Cooking in Lutetia tumbler

On some specific products, the Lutetia tumbler is used to cook with direct steam injection or use of a double jacket.

The advantages are:

- Consistent cooking without pieces sticking together
- No break up of material
- Excellent hygiene
- Yield increase
- Reduced water consumption



Cryogenic application

The Lutetia tumbler can be adapted with complementary equipment for cryo cooling, cryo freezing and cryo coating:

- Cryo cooling prior to forming
- Cryo freezing for excellent IQF results
- Cryo coating to achieve a combination of IQF freezing and sauce application

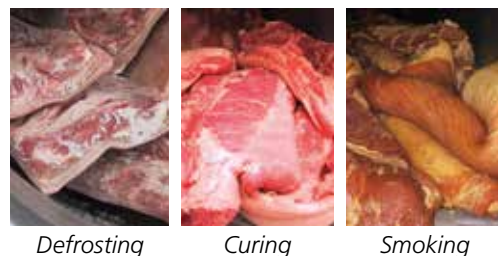


Amalgamation of process steps

The combination of process steps in a single piece of equipment, brings many advantages:

- Time and labor savings in transferring product between pieces of equipment
- Reduced cleaning time
- Lower capital investment
- Smaller footprint
- Monitoring and controlling all process steps in a single machine – reduces complexity and improves quality

ALL IN ONE



Defrosting

Curing

Smoking

Technology, Design & Engineering



Loading and unloading systems

Our global experience allows us to tailor the right solution for your application:

- Vacuum loading
- Pneumatic loading
- Hydraulic loading
- Conveyor systems

All our systems for loading are fast, simple, easy to use and safe for your operators.

Improving overall productivity.

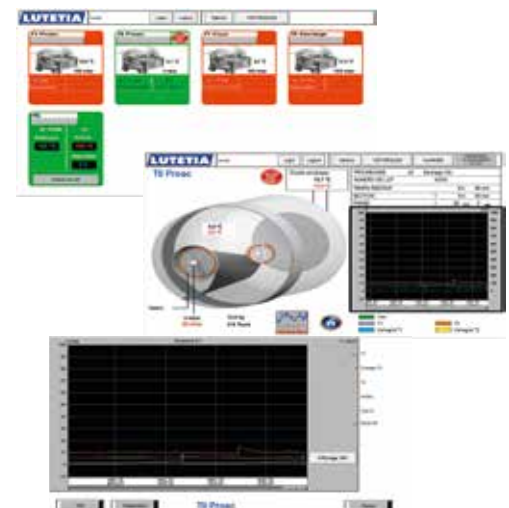
Process monitoring and Performance

IT supervision gives you full access to data recording.

Available data points include:

- Batch number
- Date and starting time
- Name of operator with different access levels
- Fault alarms with e-mail alerts
- Vacuum level
- Pressure
- Temperature
- Automatic end cycle report

Data can be viewed by phone, tablet, or PC. Direct connection to SCADA with server OPC or ethernet IP is possible and remote technical assistance is also available.



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 Ingenuity 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.

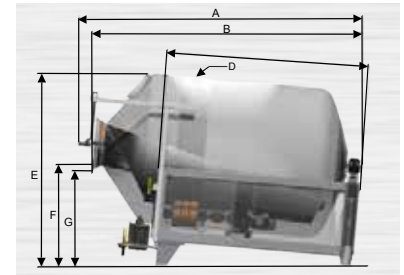
Design office

With a team of experienced engineers dedicated to design and development, Lutetia is consistently pushing the boundaries in performance and technology:

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

Range of model options

Lutetia Tumblers are in use globally for performance and profit.



Tumblers single and double jacket

	Type 0	Type 1	Type 2	Type 3	Type 4	Type 40	Type 400	Type 5	Type 6	Type 7
Capacity meat kg + brine*	100-120 220-265	350-400 770-882	800-900 1.765-1.985	1.200-1.300 2.645-2.865	1.500-1.600 3.310-3.525	1.800-2.000 3.970-4.410	2.400-2.600 5.290-5.730	3.400-3.600 7.495-7.940	5.400-5.800 11.905-12.790	6.000-6.800 13.230-14.990
A. Overall length** mm ft	1.470 4,82	2.165 7,10	2.600 8,53	2.850 9,35	3.300 10,83	3.820 12,53	3.900 12,80	3.945 12,94	5.020 16,47	4.930 16,18
B. Length without lid mm ft	1.277 4,19	1.990 6,53	2.430 7,97	2.670 8,76	3.130 10,27	3.640 11,94	3.725 12,22	3.775 12,39	4.850 15,912	4.875 15,99
C. Overall width mm ft	910 2,99	1.240 4,07	1.310 4,30	1.470 4,82	1.470 4,82	1.570 5,15	1.820 5,97	2.060 6,76	2.070 6,79	2.160 7,09
D. Diameter with brands mm ft	660 2,17	990 3,25	1.140 3,74	1.340 4,40	1.340 4,40	1.440 4,72	1.650 5,41	1.950 6,40	1.950 6,40	2.100 6,89
E. Overall height mm ft	1.990 6,530	1.970 6,46	1.980 6,50	2.020 6,63	2.020 6,63	2.100 6,89	2.265 7,43	2.480 8,14	2.550 8,37	2.725 8,94
F. Loading height mm ft	900 2,95	1.100 3,61	1.100 3,61	1.120 3,68	1.140 3,74	1.180 3,87	1.250 4,10	1.260 4,13	1.360 4,46	1.500 4,92
G. Height to mouth mm ft	860 2,82	1.020 3,35	1.020 3,35	1.040 3,41	1.060 3,48	1.100 3,61	1.170 3,84	1.180 3,87	1.275 4,18	1.427 4,68
Power kW***	1,6	3,5	3,5	5,9	5,9	7,0	7,0	7,0	10,2	10,2
Single jacket kg Single jacket lb	260 575	700 1545	1000 2200	1150 2540	1300 2870	1500 3310	1800 3970	2500 5510	3500 7720	4200 9260
Double jacket kg Double jacket lb	320 700	800 1770	1100 2430	1300 2870	1500 3310	1800 3970	2200 4850	3100 6840	4500 9920	5000 11030

* The maximum capacity depends on the injection or marinade proportion of your product and on the density.

** With a double jacket and/or the hydraulic tilting, the length is increased by 450 mm, except for T40, T400, T5, T6 et T7 massagers.

*** Power in kW is given as an indication and may be increased if options are fitted.



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