

**KLIMA<sup>®</sup>**  
patented



**Maturation, Aging, Ripening, Cold Fermentation,  
Drying, Defrosting**

**ZERNIKE**  
ALTERNATIVE HO.RE.CA. SOLUTIONS

Made in Italy

# When tradition meets technological innovation

## For natural preservation and processes

Gruppo Zernike pays very much attention to market needs and is capable of innovating itself and its own products, in order to give cutting-edge solutions to consumers, always delivering the best **functionality, energy efficiency and care for consumers' health and for the environment.**

Following this path of technological innovation, which brought us to be one of the leading companies in the Ho.Re.Ca. and large scale retail sectors, six years ago we introduced KLIMA into the market, the first patented range of meat and cheese aging cabinets.

Even back then, our aging cabinets had unique features, which made this equipment **highly specialized** and performing for fulfilling the needs of all those wishing to produce accordingly to tradition and to obtain a highly customized, non-industrial, safe, natural product.

## The evolution!

Today we present you the new generation of PROFESSIONAL CABINETS KLIMA, with a wider and new range.

Thanks to specific technical and structural features and to the adoption of an innovative technology, KLIMA became a **multitasking** range able to **create automatically the microclimate needed to execute several functions: meat, cold cuts and cheese aging, drying, defrosting, cold fermentation and preserving.**





**KLIMA  
FOOD  
CONTROL  
SYSTEM**



Different models to respond to all specific necessities of who wishes to produce small quantities of product.  
Customizable functions to satisfy any kind of production needs.



Klima is a product based entirely on **Italian design** and manufacture.

Klima cabinets are designed with no compromises, in order to execute at the highest level those functions that are part of the thousand year-long Italian culinary tradition.

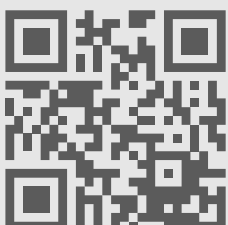
**Innovation, production, knowledge, passion and quality: all 100 % Italian.**



Our effort in the design of these machines has been focused on recreating the microclimate and the natural reactions, traditionally exploited by men, for aging meat, drying, smoking etc.

**This is why KLIMA is unique and holds three patents**, that is the result of the best competences available in the market.

Link to video





**A SINGLE TECHNOLOGY FOR 7 DIFFERENT TYPES OF PRODUCTION, WITH ONGOING H24 OPERATIVITY**

**DESIGNED TO RECREATE THE PERFECT CLIMATE FOR THE MATURATION OF MEAT, THE DRYING, THE AGING, THE FERMENTATION, THE DEFROSTING**

**TOTAL CONTROL OVER TEMPERATURE AND HUMIDITY**

**MONITORING OF THE pH**

**PATENTED AIR RECIRCULATION SYSTEM**

**PATENTED SANITATION SYSTEM**

# KFCS - KLIMA FOOD CONTROL SYSTEM

Coming soon April 2016



OPERATING TEMPERATURE: -3°C+40°C

## Maturation, aging, ripening, cold fermentation, defrosting, drying

In order to satisfy quickly the new requirements of the sector: multitasking equipment, simplified man-machine interaction, flexible and fast process durations, higher performances, KLIMA Food Control System **includes in just one device a machine for aging meat, cold cuts and cheese, a quick defroster, a dryer for pasta, fruits and vegetables and a cabinet for cold fermentation.**

## Save space and money

**KLIMA FCS is multitasking!**

It executes several functions for which you should normally need to buy many single machines, thus making you **save money and space**. It also makes the **return on your investment very quick**.

**You can buy the machine today to use just one of its functions, and in the future, if you need it, you will have the possibility to add optional extras and enable more functions.**

Each function has got its preset programs, as well as other ones to be set up by the end-users.

## It makes you save time

**KLIMA FCS works in total autonomy** allowing your staff to carry out other tasks.

This technology is designed to **create different kinds of microclimates**, through the **perfect control on temperature, humidity level and air circulation**.

## FUNCTIONS

Meat maturation



Cold cuts aging



Cheese aging - ripening



Cold fermentation



Pasta drying



Fruits and vegetables drying



Defrosting





# Meat aging

A good meat aging can give the meat tenderness, intense flavour and digestibility: characteristics which make the difference in the Ho.Re.Ca. and in the large scale retail sectors. Obtaining a perfect result requires time and a precise control of all the parameters.

KLIMA FCS combines technology and simplicity **making the aging process easy to execute for anybody**: chefs, butchers, small farmers, restaurant owners and other business owners from now on can start **managing and entirely controlling this stage of production, so crucial for the quality of the meat**.

Recreating the ideal conditions for meat maturation implies a precise management of the temperature, humidity, ventilation, and ph.

KLIMA can guarantee the best aging in relation to the specific meat type and cut. It is equipped with sensors for an electronic control of humidity which can be set by the user within a range going from 10% to 99% in order to guarantee to each type of meat the right climate, to avoid useless weight loss, and to keep the development of undesired microorganisms under control.

The great flexibility of KLIMA FCS allows you to choose the ideal cycle for the aging of your meat:

- **SLOW aging**: longer maturation process ideal for enhancing to the maximum the real flavour of meat.
- **FAST aging**: a process which cuts the aging duration for those who want to obtain a good quality product in a short time.

Available function  
on the models

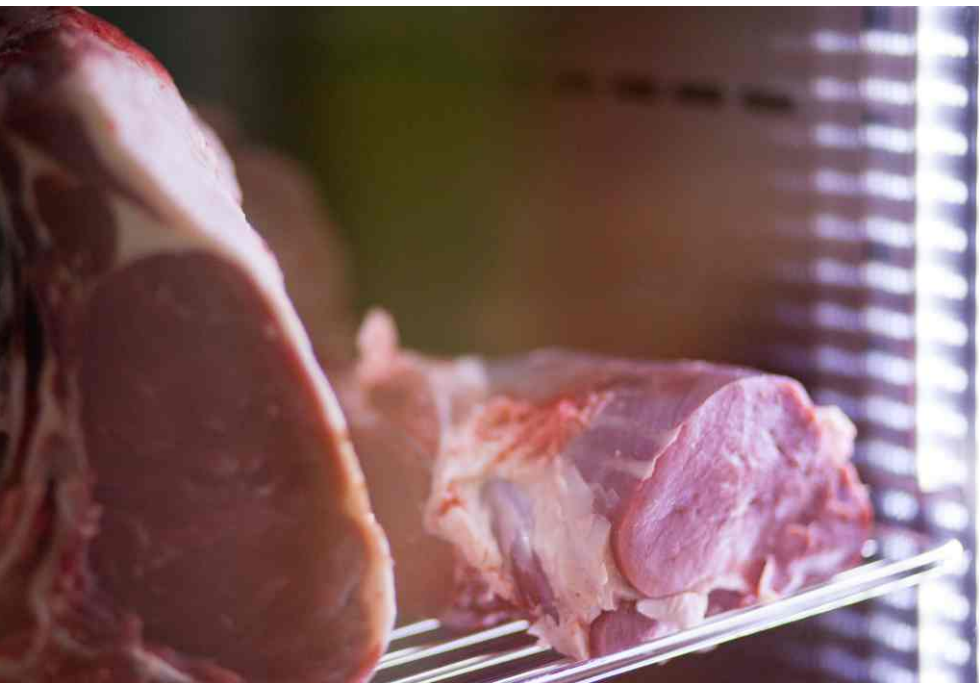
**KLIMA  
FOOD  
CONTROL  
SYSTEM**

## LEARN MORE:

For professional ethical reasons we do not provide data related to the aging process durations, which could only be misleading. The number of days required for a good aging process is extremely variable and depends on various factors: the type of meat (beef, pork, chicken, etc.), the type of cut, its weight, the correctness of the aging process and the kind of final result one wants to achieve.

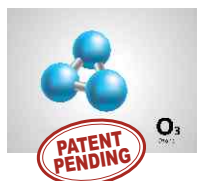
The three elements: temperature, humidity and time closely linked. These parameters can be adjusted but, nonetheless, there are limits beyond which it is advisable not to force the process, in order to avoid reducing the quality of the food treated.

Aging processes carried out in short times are detrimental to the final result and damage the sapidity and tenderness of the product.



# Earn money with high quality aging

The limit of a good aging process, with both traditional and technological means, is that it implies a certain weight loss and therefore a reduced economic return. Furthermore, the meat external part becomes very dark and needs to be cut off, for it would make the piece difficult to sell, this way increasing costs even more. KLIMA solved or reduced these problems.



## Sanity Bio System

The patented Sanity Bio System **enables meat oxygenation**, disables microorganisms and undesired mildew which alter the

product colour.

Sanity Bio System is **chemical free** and it exploits the sanitizing power of oxygen, which is distributed inside the chamber in specific, controlled doses.

These are the advantages you will obtain with Sanity Bio System:

- **control on the colour alteration of the meat**
- **reduction of unwanted bacteria and mildew**
- **sanitization of the chamber**, at the end of the various processes, so as to avoid contaminations between different kinds of food treated.
- **reduction of bad smells** developed during maturation and drying of the products.

Available function  
on the models

**KLIMA  
FOOD  
CONTROL  
SYSTEM**   **KLIMA  
AGING  
SYSTEM**



## Humidity Control

The chamber's specific internal structure and the last generation control unit installed on KLIMA cabinets,

**allow to adjust the airflow and to homogeneously distribute the humidity in each point**, so as to obtain a perfect preservation and maturation and to **prevent meat weight loss also in case of long aging processes.**

Available function  
on the models

**KLIMA  
FOOD  
CONTROL  
SYSTEM**   **KLIMA  
AGING  
SYSTEM**   **KLIMA  
STORAGE**



## pH Control

It is our deliberate choice to equip the KLIMA system with an external pH gauge to give the user **the maximum flexibility and reliability.**

This way it is possible to use the KLIMA FCS to treat **different cuts of meat for different durations, making it possible to assess the maturation level of each single cut throughout all the aging process.**

**A pH gauge placed inside the cabinet would only be able to measure one cut and would constitute a limit to the overall machine's performance.**

# Cold cuts aging

Climate changes and seasonal variations on the one side, and hygienic norms on the other, are considerably limiting the artisanal productions capable of giving an added value to the gastronomic sector of any country.

More and more often small producers are forced to give up their artisanal productions and turn to preparations.

Thanks to KLIMA FOOD CONTROL SYSTEM and KLIMA AGING SYSTEM we give the possibility to small producers to go on **aging and maturing cold cuts and cheese in any season, with high standards of quality, increased returns and in compliance with the current legislations.**

- *Aging of any cold cut with high quality results, regardless of their position inside the cabinet. Uniform development of good mildew, which are periodically oxygenated.*
- *Possibility to execute slow maturation or quick acidification aging.*
- *Flexibility in the production which allows to treat simultaneously sausages and hams and bring them to maturation together, obviously in different times.*
- *Automatic internal air recirculation.*  
*In addition, KLIMA cabinets allow you to program the extraction of the air saturated with the gas developed during the various processes and that may compromise the final result.*

Available function  
on the models

**KLIMA  
FOOD  
CONTROL  
SYSTEM**

**KLIMA  
AGING  
SYSTEM**



Salami during the first step  
of the aging process  
KLIMA FOOD CONTROL  
SYSTEM

## The 3 steps of the aging process

### Stewing.

It can last from 1 to 4 days and is executed with pre-established temperatures and humidity, for treating products requiring long maturations. Instead, for products requiring short maturations, pre-established temperatures are slightly higher and the treatment duration is between 12 and 24 hours. During this phase active fermentation processes are triggered by lactic bacteria.

### Drying.

During 3-5 days the meat is gradually brought to pre-established temperature and humidity. During this period reactions involving Ph and humidity are triggered and the latter reduces from the initial value to a 27-45%, thus contributing to the selective action on the products' microflora.

### Maturation.

It can last between 4 and 8 weeks or more. During this phase temperatures must be kept around 10/15 °C and the relative humidity between 65-80%. Here we see the evolution of the microbial population naturally present and/or added, and the occurring of the main biochemical changes, which ultimately define the quality of the aging process.





Aged salami and other aged cold cuts  
KLIMA FOOD CONTROLL SYSTEM



Aged cheese  
KLIMA FOOD CONTROLL SYSTEM

# Cheese aging - affinage

Aging strengthens the cheese structure and helps it develop its tastes and flavours.

This process is based on a complex alchemy of climatic conditions and elements such as water, air, temperature (smoke in certain cases) and time, all of which traditionally occurred in natural or artificial caverns, where the temperature always keeps fresh around 10-15°C and the humidity level is high and constant.

The KLIMA cabinets not only recreate the environmental conditions necessary for a perfect aging process, but they also give the possibility to modify and adjust these conditions, so as to give the products unexpected smells and flavours.

Available function  
on the models

**KLIMA**  
**FOOD**  
**CONTROL**  
**SYSTEM**

**KLIMA**  
**AGING**  
**SYSTEM**

# Drying

Among all the food preservation methods, drying is surely the oldest, most healthy, natural, cost efficient and ecological. This process consists in depriving food of the 80-90% of its water, being this the element essential to the life of the microorganisms that cause food degradation.

With KLIMA FOOD CONTROL SYSTEM you **can dry meat, fish, pasta, vegetables, mushrooms, aromatic and medical herbs** and create ready-to-use product stocks with intact organoleptic qualities.

Drying can give several advantages to a restaurant or to other food service businesses. For example, drying pasta allows you to shorten production and storage times, while drying vegetables and fruits guarantees an annual availability of quality food.

Traditionally, drying has been performed using the heat produced by the sun, which is subject to season changes, to the weather and to other environmental conditions.

Today, thanks to KLIMA FOOD CONTROL SYSTEM these operations **can easily be performed in shorter times and without being affected by the climate**, the season or the weather. If the drying is performed at a temperature lower than 30°C, **food will preserve all its proprieties such as enzymes and vitamins**, and will keep taste and smell similar to those of a fresh product.

KLIMA has a high load capacity and is designed to work uniformly on each loading level.

The special horizontal ventilation acts uniformly on compartments levels and guarantees a high quality final result together with the preservation of the products' organoleptic properties.

Available function  
on the models

**KLIMA  
FOOD  
CONTROL  
SYSTEM**

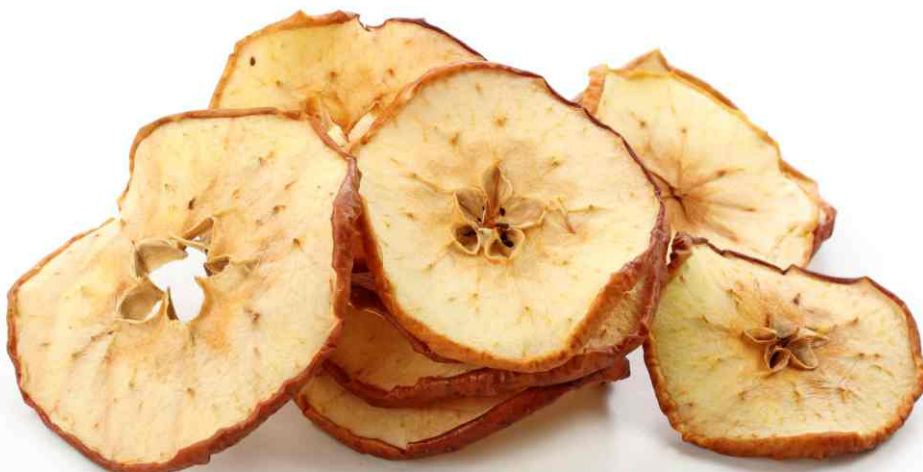


Products dried with  
KLIMA FOOD CONTROL SYSTEM

#### TECHNICAL DETAILS:

KLIMA FOOD CONTROL SYSTEM has a high load capacity:

- n. 15 trays g.n. 2/1  
on the 700 and 900 models
- n. 30 trays g.n. 2/1  
on the 1500 model





# Cold fermentation

The use of leavened products in modern food service is increasing more and more.

The leavening and cold fermentation processes concern bakery and pastry dough, and their main function is to avoid uncomfortable work shifts, but it can be used also to defrost and leaven frozen dough.

Through a **correct setting and management of temperature**, humidity and time of the processes, it is possible to obtain a ready to cook product right at the desired moment.

Plus :the **horizontal ventilation guarantees quick and uniform leavening on all the loading compartments**.

Available function  
on the models

KLIMA  
FOOD  
CONTROL  
SYSTEM

# Quick defrost

The quick defrost function of KLIMA FCS guarantees a great result both on a hygienic and a qualitative level, making obsolete and profitless all the traditional techniques adopted until now.

A sensor monitors the temperature at the heart of the product, inside a humidity controlled chamber, while the ventilation system creates a uniform airflow which strokes the food homogeneously on all compartments, with a starting temperature of +20°C.

During the process both temperature and humidity will progressively decrease until complete product defrost is reached.

At this point the maintaining **function automatically activates and keeps the product at a temperature of 0 /+2°C**, which makes it ready to be processed or cooked.

Thanks to KLIMA's humidity control system, the food does not oxidize, does not change colour and, above all, it loses very few liquids, thus keeping its consistency and flavour unaltered for a high quality cooking.

The temperature sensor and the horizontal ventilation are the key combination that allows to obtain a perfect control of the defrost temperature and therefore a high quality final result.

Available function  
on the models

KLIMA  
FOOD  
CONTROL  
SYSTEM



Products during cold fermentation  
KLIMA FOOD CONTROL SYSTEM



Products during defrosting process with sensor  
KLIMA FOOD CONTROL SYSTEM

**LEARN MORE:** Modern food services increasingly uses frozen food and meat, fish and vegetables defrost is one of the slowest and most delicate processes that may need to be performed in this sector. If the process is managed in a wrong way, for example due to the fast pace of work in the kitchens, food safety can be compromised.

Until now, the quickest and most used defrost methods are by means of a direct water flow or by a microwave.

Direct water flow is advised against by hygienic norms for it may cause contraindications, while the microwave defrosts quickly but basically also start cooking the food.

Another method adopted is the defrost inside a refrigerator at +2°C. Unfortunately this procedure is very slow and does not suit the need of quickness typical of the modern food service sector.



# Efficiency with no compromises

KLIMA is thought for those who want an excellent final result, a constant high level quality, the possibility to operate all through the year, alternating the various processes, with quickness and a precise control over the internal microclimate.

**KLIMA Food Control System** combines all that with an easy and intuitive use, thanks to its innovative technology.

## Touch screen control panel



High definition, colour, 7" capacitive touch screen. No more long manuals and complicated instructions: **to start any function you just need to select the relevant icon**

and access the pre-set programs.

Do you want to customize your production?

Nothing could be simpler than that!

**The touch screen is easy and intuitive to use**, giving you the possibility to create and memorize each single stage of the processes.

## Double glazing door glass and 75mm thick sides and back for high thermal insulation

Thick sides and back guarantee the lowest energy dispersion and the uniformity of temperature inside the cabinet, in order to obtain an excellent preservation.

## Made of AISI 304 18/10 stainless steel for enduring through time



All the components are entirely **made of AISI 304 18/10 stainless steel**. Finish with scotch brite.



## LED Lighting

Each cabinet KLIMA is equipped inside with LED lights. The best lighting together with the best design.



made in Italy



## Retractable door handle



Clean lines door with side retractable handle for a modern and elegant design.

## Perfect ventilation



Klima adopts a **patented ventilation system**, which conveys the air and expels it through calibrated slot holes.

**The product is not exposed directly to the airflow and the air control allows to create an homogeneous climate** in each point of the chamber.

It eliminates the necessity to move the products during maturation, aging and drying.

## Storing system



**Exclusive patented system of long bars and structures**, both vertically and horizontally adjustable.

The specific coupling on the side of the bars **gives stability and resistance**; the triangle shaped teeth facilitate the loading and unloading procedures.

**This system does not need hooks, maximizing the space vertically.**

The long bars **allow to exploit** the cabinet's entire volume, thus increasing the productivity.







**ONGOING PRODUCTION THROUGHOUT ALL THE YEAR  
CONSTANT H24 OPERATIVITY**

**RECREATES THE PERFECT CLIMATE FOR COLD CUTS  
AND CHEESE AGING**

**TOTAL CONTROL ON COLD AND HUMIDITY**

**MONITORING OF THE PH**

**PATENTED AIR RECIRCULATION SYSTEM**

**PATENTED COLD CUTS HANGING SYSTEM**

**HIGH EFFICIENCY AND QUICK RETURN ON  
INVESTMENT**

**PATENTED SANITATION SYSTEM**



# KAS - KLIMA AGING SYSTEM



OPERATING  
TEMPERATURE: 0°C+40°C

## Cabinet for cold cuts and salami aging and cheese ripening

The possibility to produce cold cuts and cheese respecting the artisanal tradition and quality is what nowadays dictates the commercial and gastronomic success of food products. That is the only way to obtain high standard in quality, shape and flavours, which really makes the difference in the market and in the catering and restaurants sector.

Thanks to KLIMA AGING SYSTEM you will be able to continue your production and be sure to have the perfect climate throughout the whole year. You will choose in full autonomy each time whether to have a process of slow drying or fast fermentation.

**Salami without additives:** thanks to the specific drying process, the exact adjustment of humidity and temperature, you shall have a «natural» maturation. Moreover, you can **avoid the use of additives**, keeping the complete control on the bacterial activity.



Cheese ripening inside  
KLIMA AGING SYSTEM



Placement of salami inside  
KLIMA AGING SYSTEM

## FUNCTIONS

Cold cuts  
aging



Cheese  
ripening -  
affinage



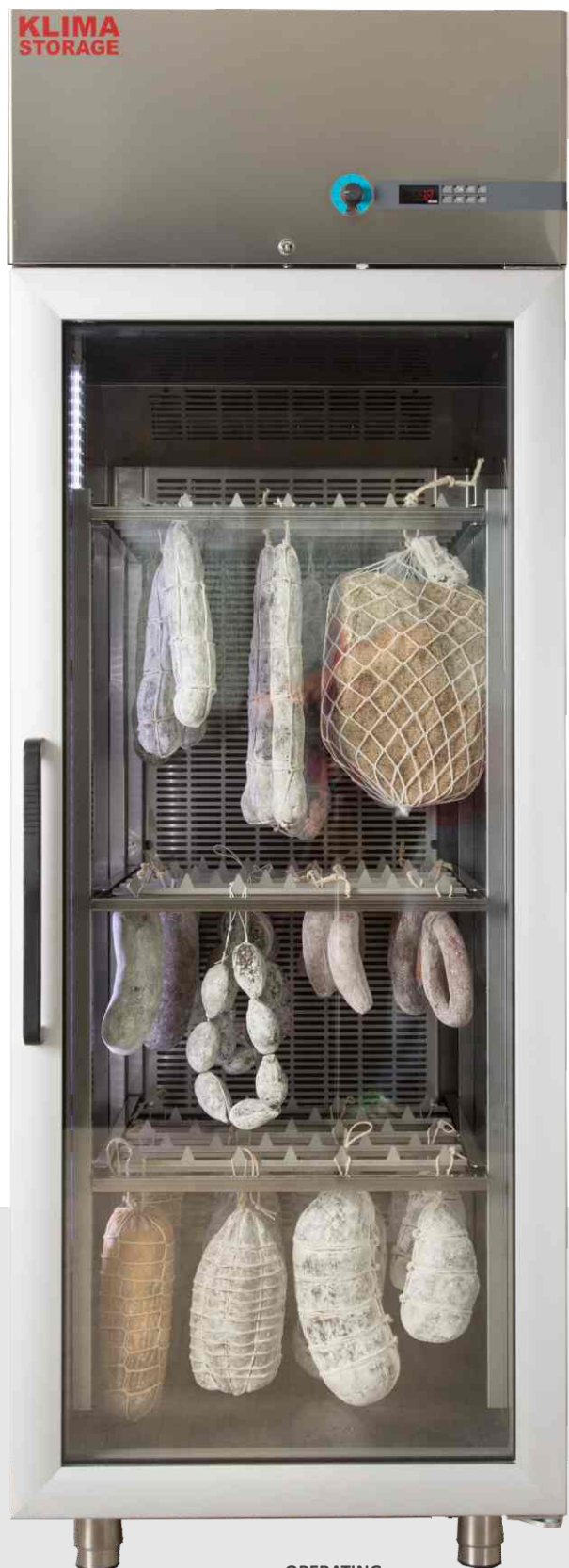


IT PRESERVES AGED PRODUCTS AND FRESH FOOD  
ALLOWING YOU **TO ADJUST THE TEMPERATURE  
AND HUMIDITY** ACCORDING TO THE CLIMATE  
NEEDED FOR **EACH PRODUCT**

IDEAL FOR COLD CUTS, CHEESE, PASTA, FRUITS AND  
VEGETABLES

**DELAYS THE DEHYDRATION AND DETERIORATION  
TIMES**

# KS - KLIMA STORAGE



**OPERATING  
TEMPERATURE: -2°C+10°C**

## Preservation and display cabinet for aged and fresh products

Klima Storage is the ideal solution to preserve aged food products such as cold cuts and cheese, and it has been designed as the final step of the aging/maturation performed by inside our KLIMA Aging System.

The Klima Storage cabinet keeps food products in the best conditions.

It preserves all those products that require a specific regulation of humidity, that may vary from 30% to 90%, for example cold cuts, cheese, pasta, fruits and vegetables.

The possibility to adjust the humidity percentage inside the preservation cabinet makes it an ideal equipment.

### FEATURES

- Electronic adjustment control
- Door lock with key
- LED lighting



Patented frame for hanging salami, grill, evaporated wood plank



Fruit and vegetable preservation  
KLIMA STORAGE



Pasta preservation  
KLIMA STORAGE



Preserved cheese,  
KLIMA STORAGE with stainless  
steel door





## KLIMA FOOD CONTROL SYSTEM

	LINE 700	LINE 900	LINE 1500
<b>Capacity</b>	700 LT	800 LT	1500 LT
<b>MODEL</b>			
<b>Glass door</b>	KFCS700PV	KFCS900PV	KFCS1500PV
<b>Inox door</b>	KFCS700PC	KFCS900PC	KFCS1500PC
<b>Dimensions</b>	710x850x2115h	920x725x2115h	1500x850x2115h
<b>Power</b>	KW 0,90	KW 1,00	KW 2,00
<b>Voltage</b>	230V/50/1	230V/50/1	230V/50/1

**OPERATING TEMPERATURE: -3°C + 40°C**

### STANDARD EQUIPMENT

#### for the 700-900 models

- n. 3 pairs of rails with stainless steel grill
- technology for sanitization and deodorization

#### for the 1500 model

- n. 6 pairs of rails with stainless steel grill
- technology for sanitization and deodorization

### EXTRAS ON DEMAND

- Ph sensor/gauge for meat aging
- Bars or frames for hanging salami, for aging function
- Wood plank for cheese ripening
- Stainless steel grills for cold fermentation and meat maturation
- Stainless steel mesh tray for drying
- Sensor/gauge for food internal temperature, for defrost function.
- Pairs of rails
- Frames for hanging salami

Non-binding tecnica data

## KLIMA AGING SYSTEM

	LINE 700 lt	LINE 900 lt	LINE 1500 lt
<b>Capacity</b>	700 LT	800 LT	1500 LT
<b>MODEL</b>			
<b>Glass door</b>	KAS700PV	KAS900PV	KAS1500PV
<b>Inox door</b>	KAS700PC	KAS900PC	KAS1500PC
<b>Dimensions</b>	710x850x2115h	920x725x2115h	1500x850x2115h
<b>Power</b>	KW 0,90	KW 1,00	KW 2,00
<b>Voltage</b>	230V/50/1	230V/50/1	230V/50/1

**OPERATING TEMPERATURE: 0°C + 40°C**

### STANDARD EQUIPMENT

#### For the 700-900 models

n. 3 pairs of rails with stainless steel grill

#### For the 1500 model

n. 6 pairs of rails with stainless steel grill

### EXTRAS ON DEMAND

- Ph sensor/gauge for meat aging
- Bars or frames for hanging salami, for aging function
- Wooden plank for cheese ripening
- Technology for sanitization and deodorization

## KLIMA STORAGE

	LINE 700
<b>Capacity</b>	700 LT
<b>MODEL</b>	
<b>Glass door</b>	KS700PV
<b>Inox door</b>	KS700PC
<b>Dimensions</b>	740x815x2085h
<b>Power</b>	KW 0,90
<b>Voltage</b>	230V/50/1

**OPERATING TEMPERATURE: -2°C + 10°C**

### STANDARD EQUIPMENT

n. 3 frames for hanging salami with rails pair

### EXTRAS ON DEMAND

- Evaporated wooden plank
- Rilsan grills
- Pairs of stainless steel rails
- Frames for hanging salami

Non-binding tecnica data