



## Thawing, such a sensitive stage...

Paramount as regards to the transformation of any foodstuffs, thawing got to be painstakingly carried out so as to guarantee the quality of the end product.

However, considering the unenthusiastic results triggered by the current processes, a great deal of agribusiness industrialists remained convinced this stage was all too often difficult :

\* Indeed, although the slow thawing, in the open, in a cold chamber (3°C) proves to be very respectful toward the quality of the product, his overlong duration (between 24 and 72 hours) can't meet basic needs of the productivity and reactivity criterions expected.

\* Even if the creation of thawing rooms was critical in dwindling the cycles duration, the corresponding processes, way too swift when used, turns out to have too many drawbacks :

- Thawing by cold water circulation (10°C) eventually leads to the over-consumption of water and to some too important cross-contamination hazards.

- Thawing with an hot air pulse generator (set between 25 and 35°C) does not prevent the treated products from being altered.

Therefore, industrialists need to come up with a technical solution between long and short cycles slated to fulfil their expectations.

## The ARCOS solution...

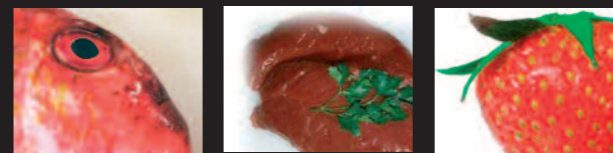
Asked to do so, ARCOS, cell constructor and air-flux expert in controlled environment, is now skilled enough to live up to the industrialists expectations in this field of activity.

His "THAWING BY TEMPERED AND HIGHLY DAMPED AIR VENTILATION" process proved to be able to successfully combine all the upsides of the aforementioned methods and at the same time to erase their downsides.

Based upon the aero-thermic treatment of the products bound to be thawed, the ARCOS solution ultimately guarantees a quality and a maximum security for your treated products, whatever their sense of purpose might be.



## The ARCOS process strong point



With a high technicality, the thawing process by tempered and highly damped air ventilation is far from being devoid of assets.

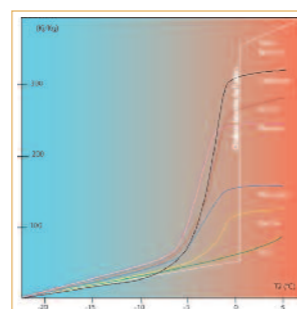
He provides to his users :

### ... a controlled duration of cycle

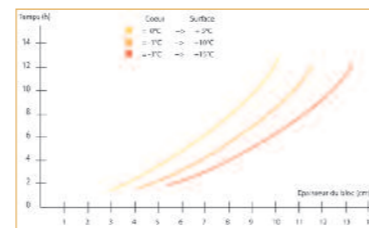
Perfect for those who plan their productions the day before, the ARCOS solution enable cycles between 8 and 16 hours, let alone the possibility to maintain the products in a "fridge" option at the end of the treatment.

### ... an unhindered adaptation toward your treated products

Because each product is different, and that its thawing depends on its own composition, its water content and its thickness, the ARCOS thawing process (in cells or in outfitted rooms) fits to all kinds of products : meat, fish, fruits, vegetables, delicatessen food (in small containers or in whole blocks).



Thawing specific heat



Thawing cycles length

### ... a uniform quality

The quality of the treatment of your finished products is guaranteed by the efficiency and the reliability of the VARIABLE FLUX process.

Set on carts, your frozen blocks are placed inside a thawing room, where some fans are going to provide an hot and damp air in the atmosphere in an uniform way through the products.

This air-product thermal transfer, quite efficient, is furthered by a powerful horizontal ventilation, uniform all over the cell, but also by an air filled with steam water.

The air is moisturized through a direct steam injection, or by atomizing, according to the set temperature.

On top of the thermal transfers optimization, frozen products dehydration turns out to be restricted.

### ... productions regularity

With a safe handling and an ease of use, the ARCOS process guarantees you a great many advantages, namely : working accuracy, thawing regularity, and a control of the output.

These performances are obtained thanks to the technicality of the ARCOS regulation system (with the possibility to customize your own settings) which is a sure way to ensure :

- an accurate management of the temperature and of the room hygrometry
- a control over the surface temperature
- control and management over the internal temperature of your treated products.

### ... an optimized alimentary security

The built-in refrigerating equipment permanently adjusts the room temperature so that the surface temperature of the treated product never goes beyond the one you've chosen from the get-go (by and large, a 6°C temperature is used), the whole idea being to respect the sanitary norms.

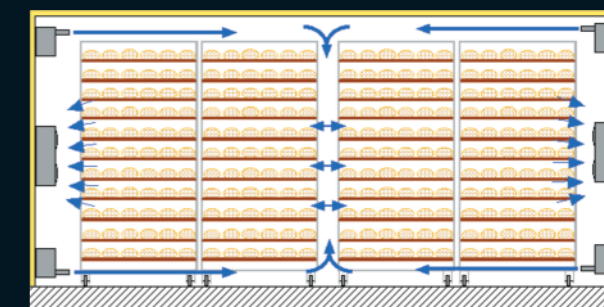
### ... an easy upkeep

Sturdy, made of stainless steel, ARCOS supplies are easily cleanable and quite easy to keep in good condition.

Some models are outfitted with an automatic cleaning of the cell and of the technical organs.



Thawing cells



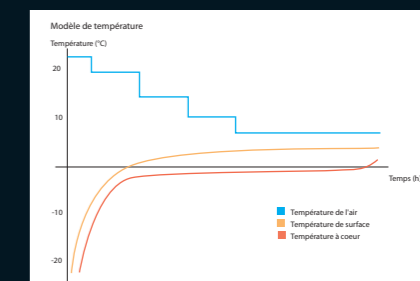
Variable flow horizontal ventilation



Regulation device



Traceability software VISULINE



Thawing cycle by levels

# Arcos

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