

## SPECIAL: VENTILATED AND GLYCOL COMPARED.

Everything you always wanted to know about gelato tubs: features and performances of ventilated gelato tubs compared to those with static refrigeration - liquid cooling (mix of glycol and water), for an aware choice...

### VENTILATED TUBS

### GLYCOL TUBS

#### TECHNOLOGICAL METHOD

Ventilated gelato tubs are a technological innovation, exclusive to IFI.

Glycol gelato tubs are a historical conservation method for gelato (ex brine) to which IFI has brought significant functional improvements.

#### WEIGHT AND INSTALLATION

The ventilated gelato tubs are light in that they have no liquid inside but only fans for the movement of the cold air and they are installed with a simple electrical connection (in the case of a condensing unit on board model).

The glycol gelato tubs have an elevated weight, in that they must contain a certain quantity of liquid inside. That is the reason the structure of the case must be very sturdy and well anchored to the counter or the back counter. Installation is more complex in that the cooling liquid must be prepared on site, and the case container must be filled in the correct proportions of water and glycol mix.

#### ACHIEVEMENT OF OPERATING TEMPERATURE

At 30° C room temperature the ventilated tub achieves operating temperature in **30 MINUTES**, permitting a rapid insertion of the gelato.

At 30° C room temperature the liquid refrigerated tub achieves operating temperature in about **10 HOURS**.

#### THERMAL DELTA

Forced air ventilation permits to work out the problem of the stratification of the cold, typical of liquid cooled static refrigeration, in that it reduces the difference in temperature (thermal delta) between the upper service counter level and the reserve cylindrical bucket, allowing this latter to be immediately ready for use.

Static liquid refrigeration has a natural downward stratification of the cold liquid in that the cold liquid is heavier than the warmer liquid. The temperature gap between the upper service counter level and the reserve cylindrical bucket, may achieve in some cases a difference of about 5° - 6° C. (except for glycol tubs by IFI, where the thermal delta is only of about 2°C)

#### GELATO SERVING LEVEL

With the ventilated IFI tub the level of the gelato may be maintained at only 5 cm below the serving counter level, making service easier and more ergonomic.

With the glycol tubs the gelato is usually kept at an average of 15 to 20 cm below the serving counter level, as it must be maintained below the level of the cooling liquid. The service is therefore lower and less convenient.

## VENTILATED TUBS

## GLYCOL TUBS

### CLEANING

The stainless steel container that contains the cylindrical buckets is equipped with little drain wells with removable plugs, to ease the operations of defrost and cleaning. Once the condensing unit is stopped, you just need to remove the plug to allow the water to flow out. The inside shape of the container additionally facilitates cleaning.

In the case of glycol refrigeration, the cylindrical buckets are inserted inside of sealed containers, slightly larger than the cylindrical buckets themselves (Ø 21 cm) and 60 cm deep, immersed in the cooling liquid. Cleaning is very uncomfortable not only because of the particular shape of the sealed containers but also because the glycol tub is usually never shut off until the end of the season (due to high start-up costs), which is the reason why eventual ice formations must be removed manually.

### DISPOSAL

The glycol tubs disposal is made complicated by the need to recover and dispose hundreds of litres of glycol, in accordance with current laws regarding waste disposal.

### ELECTRICAL ENERGY CONSUMPTION

The start up of a ventilated tub container counter requires a low consumption of electrical energy in that the operating temperature is achieved in only 30 minutes. Once the operating temperature is achieved, the ventilated tubs consume more electrical energy for the maintenance of a constant temperature than the glycol refrigerated tubs.

The glycol gelato tubs container case start-up is quite burdensome in that in order to achieve the operating temperature 10 hours are needed. For maintenance of a constant temperature, electrical energy consumption is very low. If the glycol tubs are never turned off during the season, then electrical energy consumption will surely be much lower compared to that of the ventilated tubs.

### GELATO CONSERVATION IN CASE OF POWER FAILURE

In case of an electrical power failure the gelato stored inside a ventilated tub will keep fine for a maximum of 4-6 hours (with closed lid).

In case of an electrical power failure the gelato stored inside a glycol refrigerated case will keep fine for up to 20-24 hours (with closed lid).

... and since electrical consumptions are the only positive feature of glycol tubs and because electrical blackouts are normally short and rare events, IFI ventilated gelato tubs are the best choice.