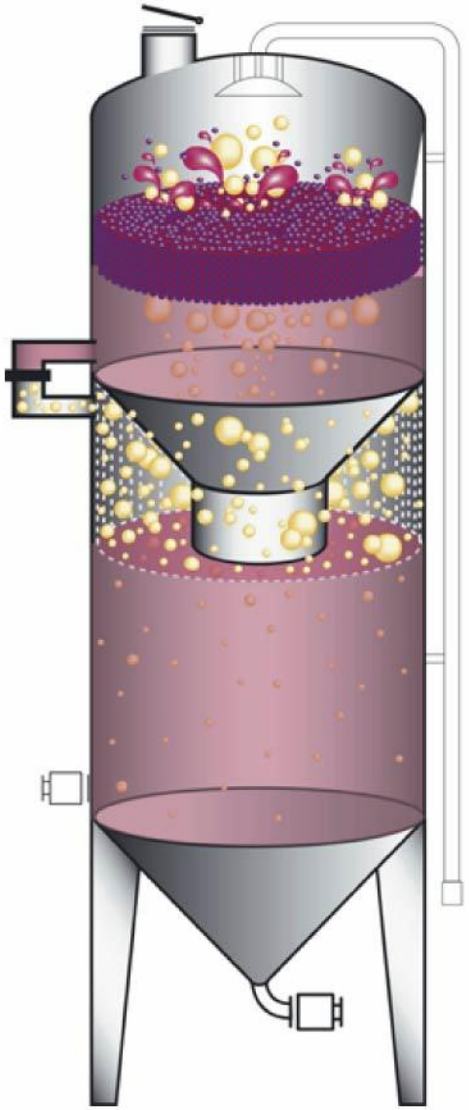
Ganimede®

metodo Ganimede®

Il Fermentatore Innovativo.



1.From grapes to wine, with method.

Efficient and flexible winemaking.

Il Fermentatore Innovativo.

metodo Ganimede®

RAW GRAPES

WINEMAKER

FLEXIBILITY
IN MASTERING VARIABLE CONDITIONS

Geographic Position – Climatic Conditions – Environmental Conditions
Quality of Grapes – Type of Grape Variety
Business requirements – Market requirements

EFFICIENCY IN MASTERING PROCESSES

Efficient Grapegrowing	Efficient Winemaking	Efficient Refining

BEST POSSIBLE RESULT

Both the grapes and the Winemaker play a key role in the process of making wine. The latter must have flexible tools readily available so as to master all variable conditions according to his/her own will, sensitivity and needs, from plant to bottle. A proper mastering of all variables guarantees that efficient processes make it viable to get in a targeted and rational way the best possible wine from the original grapes.

Il Fermentatore Innovativo.

2.Extraction.

Getting the most out of the raw grapes and SELECTIVE EXTRACTION.

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WHERE DOES EXTRACTION TAKE PLACE?

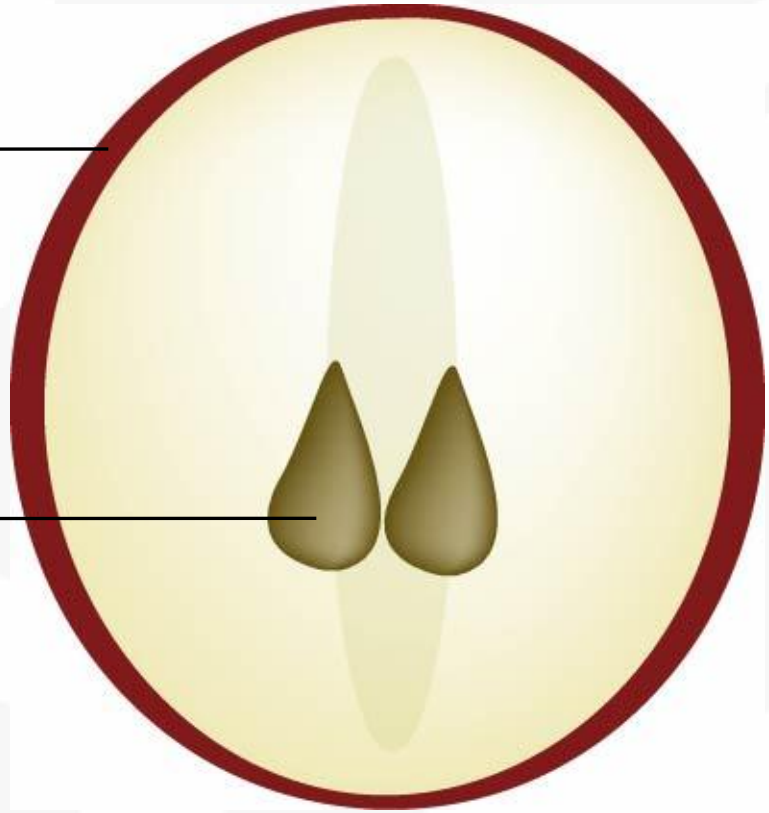
SKINS

5-7 percent of crushed grapes

Supple tannins

Pigments
Aromas (or their precursors)

SEEDS 3-5 percent of crushed grapes
Tannins often unripe and therefore aggressive



While it is true that a good wine is started in the vineyard, it is equally true that extraction carried out in the winery must pay respect to the grapes produced through proper growing.

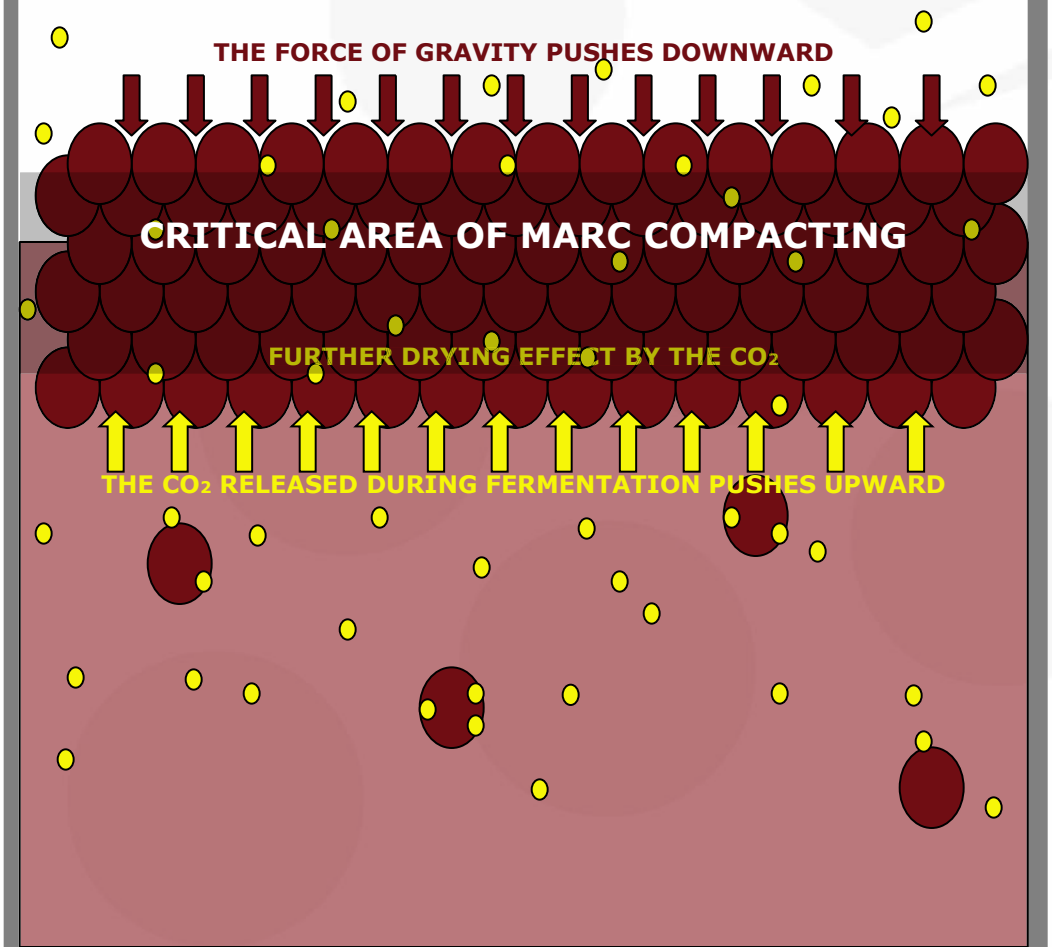
The solid elements in the must, accounting for about 10 percent (dry marc), are the seeds (3 to 5 percent) and the skins (5 to 7 percent).

The part of skins (a source of sweet and smooth tannins) is not that much greater than the part of seeds (usually, a source of bitter and rough tannins).

The skins, beside noble tannins, also contain colouring substances and aromas (or their precursors)

THE CAP OF MARC

THE CRITICAL AREA can affect up to 30-50 percent of the cap of marc, and most of the work done in the vineyard is then wasted.



As soon as the crushed grapes are introduced in the vat, the solid elements (i.e. skins and seeds) will rise to the top and gather to form the CAP OF MARC.

As fermentation goes on, CO_2 bubbles will develop and push the cap upward, where it gets dehydrated. At the same time, the force of gravity will press the cap downward.
These two opposed forces acting simultaneously produce a COMPACTED MARC.

This is the main trouble for any winemaker, since pigments, tannins, aromas, etc... must be extracted from the skins.

Il Fermentatore Innovativo.

SELECTIVE EXTRACTION

If the only objective was to encourage the greatest possible extraction from the grapes, then we could just "spin" them in a mixer and obtain a large amount of extracts!

But a good wine depends on the QUALITY and BALANCE of extracts and NOT their QUANTITY. This means we need to have a proper equipment to make a soft while efficient action and guarantee a SELECTIVE EXTRACTION of the NOBLE SUBSTANCES CONTAINED IN THE SKINS only

HOW DO YOU GET SELECTIVE EXTRACTION?

A SELECTIVE EXTRACTION is obtained when 100 percent of the SKINS - the source of NOBLE SUBSTANCES - are allowed to contribute to extraction and, if needed, SEEDS CAN BE EXCLUDED FROM THE PROCESS.

Considering that the CRITICAL AREA of compacted skins can affect 30-50 percent of the cap, you can guess what a huge waste we may have.

COMPOSITION OF MUST	**10 tons**	**WASTE OF PRODUCT because of compacted skins in the CRITICAL AREA (30-50 percent)**
LIQUID PART: 90 percent	**9 tons**	
CAP OF MARC: 10 percent	**1 ton**	0.3-0.5 tons CAP OF MARC
of which	**of which**	of which
SKINS: 5-7 percent	**0.5-0.7 t.**	0.15-0.35 tons SKINS
SEEDS 3-5 percent	**0.3-0.5 t.**	0,09-0,25 tons SEEDS

A fermenter will have to PREVENT THE CAP OF MARC FROM COMPACTING so that ALL SKINS ARE FULLY EXPLOITED in a DELICATE but EFFICIENT way, and will have to give the chance to REMOVE THE SEEDS.

metodo Ganimede®

HOW TO EXPLOIT THE CAP OF MARC EFFICIENTLY AND OBTAIN A SELECTIVE EXTRACTION.

- **Using up 100 percent of the grapes.**
- **The whole cap is constantly flooded by the liquid.**
- **The liquid wetting the cap is frequently replaced (as soon as the liquid in the skins gets saturated with extracts, it will stop extracting and must be replaced)**
- **The cap is stirred SOFTLY and NOT AGGRESSIVE to prevent skins from compacting and protect them against shocks and breaks (this way, unwanted bitter substances won't be extracted and no lees will form)**
- **Control over extraction of the substances contained in the cap of marc (Selective Extraction).**

To understand how substances are extracted from the cap, think of what happens to a tea bag introduced in hot water. You will see that substances are released from the bag, but soon the water around the bag gets saturated and extraction stops. If you stir the bag or the water around it, you will see that new less saturated liquid triggers again the release of substances. This is exactly what we need to get from the cap of marc. Bear in mind that inefficient extraction can mean that up to 50 percent of the product will be wasted!

RY

THE MAIN TRADITIONAL SYSTEMS AND THEIR ACTION ON THE CAP OF MARC

• PUMPING OVER

The liquid below the cap is pumped and sprinkled on top of the cap to wet the marc.
Drawbacks: the liquid is overexposed to uncontrolled environmental conditions; some of the marc gets minced up in the pump; the liquid runs through preferential paths and cannot affect the whole mass;abnormal fermentation (reduction process) in some dry and compacted parts of the cap; even temperature in the whole mass is difficult to obtain.

• PLUNGING DOWN

This method, done by hand or machine in open vats or closed tanks, consists in breaking the marc and plunging it vigorously down into the liquid below, with manual tools or mechanical pistons.
Drawbacks: overuse of labour force in the manual method; difficult mastering of large masses; excessive mechanical action on the marc, which risks to get minced up; risk of frequent technical stops because of an overuse of mechanical equipment; overexposition of the mass to uncontrolled environmental conditions, with acetic characters developing in open vats; high consumption of electricity in piston-powered vats

• ROTARY

This takes place in powered horizontal rotating vats. This rotation stirs the cap of marc and keeps it wet.
Drawbacks: excessive mechanical strain on the mass; non-selective extraction (the seeds are stirred up as well); excessive maintenance and power consumption; risk of frequent technical stops because of mechanical breakdowns.

• OTHER SYSTEMS

Several attempts have been made to find a solution for a common trouble: preventing the cap from compacting and trying to tap efficiently the whole mass. Most fermenters make use of mechanical devices to solve this problem.
Drawbacks: the trouble with these systems is almost always an excessive mechanical strain on the marc; the lack of selection in extraction and a weak control over the process by the Winemaker.

3.Metodo Ganimede®

The revolutionary contribution of **Ganimede®** to selective extraction.

Il Fermentatore Innovativo.

Ganimede®, the innovative fermenter

Open tank (not under pressure)

Top room
(communicates directly with the bottom room through the funnelled diaphragm)

Cap of marc

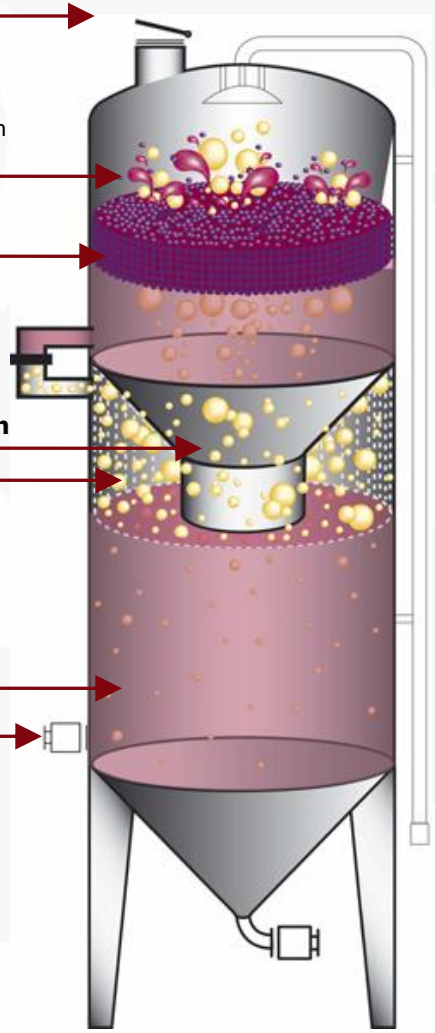
Bypass
(a valve connecting the CO_2 mass with the top room where the cap gathers)

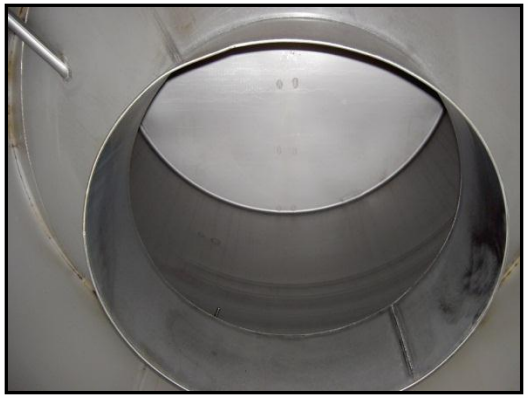
Funnelled diaphragm

Gap for CO_2 storage

Bottom room
(communicates directly with the top room through the funnelled diaphragm)

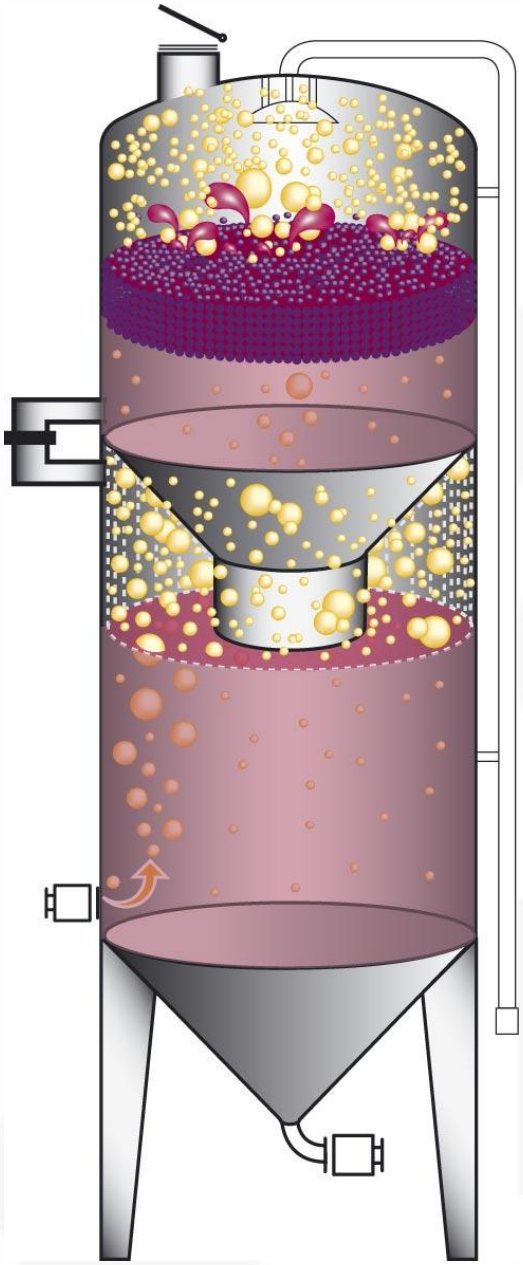
Valve to introduce technical gas



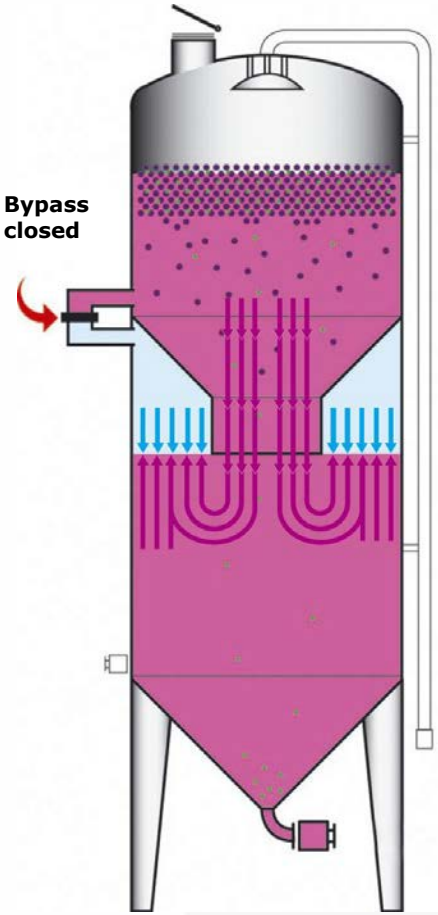


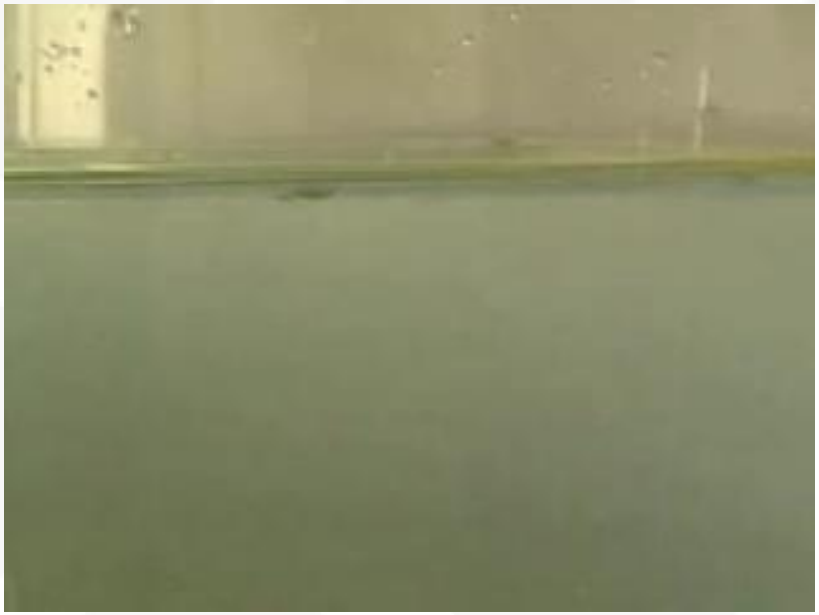
Ganimede

metodo Ganimede®



Why does the gap in Ganimede® not expand?





Air (or any other gases in the gap) cannot escape from the closed bypass and gets trapped under the diaphragm, where it counters the liquid pushing

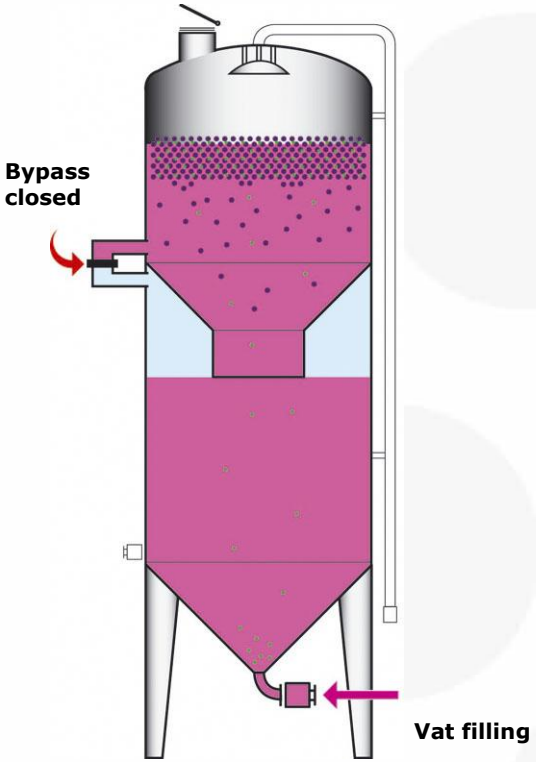
The liquid cannot flood the room below the diaphragm (filled by air) and starts to rise, through the neck of the diaphragm, into the top room

The revolutionary **funnelled diaphragm** inside **Ganimede®** fermenters creates the **gap where the CO_2 will gather during the fermentation process.**

When the vat is being filled and the liquid gets to the neck of the diaphragm, air is trapped in the gap and compressed by the rising liquid. Since the liquid cannot enlarge the gap, it has no other chance but continuing to rise through the neck of the diaphragm and fill the top room.

To understand this process, just think of what happens if you introduce a glass face down in a container full of liquid: in spite of the high pressure, water will not get into the glass, because the air in it cannot get out!

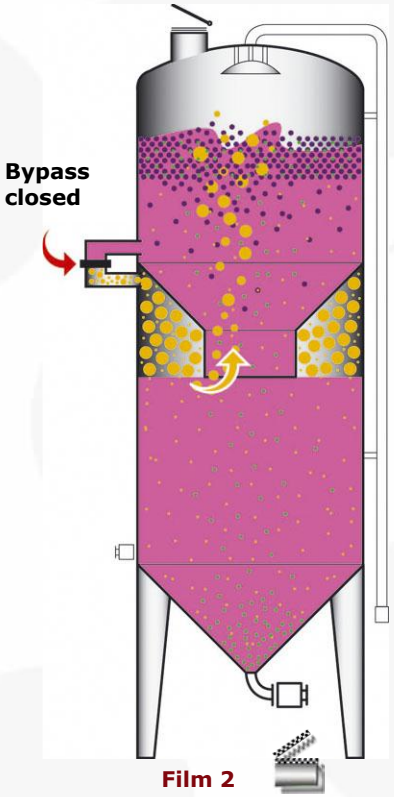
How does Ganimede® work?



Step 1

Filling with bypass closed.

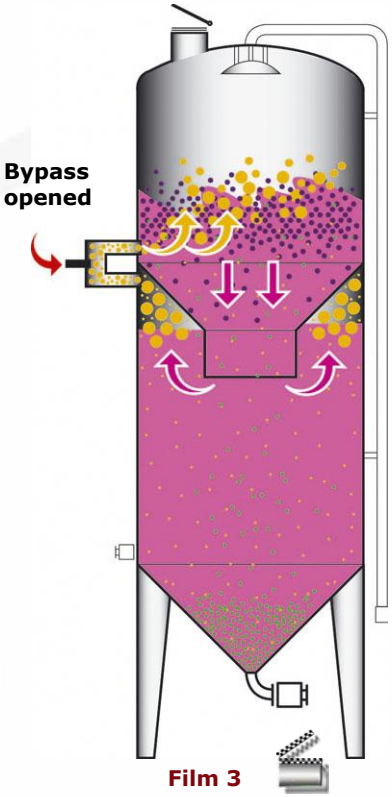
The air cannot escape from the bypass and prevents the gap from being flooded by the liquid.
The solid elements gather on the surface and form the cap of marc.



Film 2

Step 2

The CO_2 developed during fermentation soon replaces air and saturates the gap. **Since the bypass is closed and there is no other escape way, the excess of gas breaks out through the funnelled diaphragm into big bubbles. The bubbles will stir the cap softly and thoroughly, preventing it from compacting!**
The natural turbulence of the system will cause the seeds to fall by gravity to the bottom of the tank.

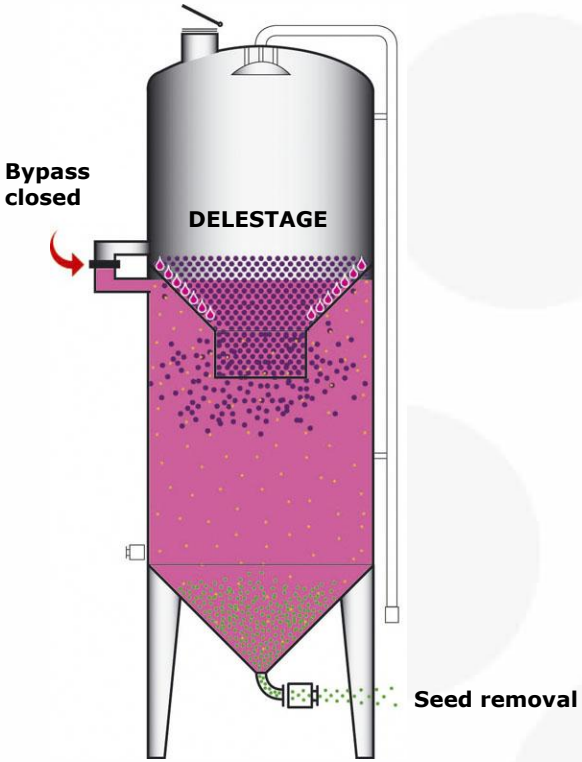


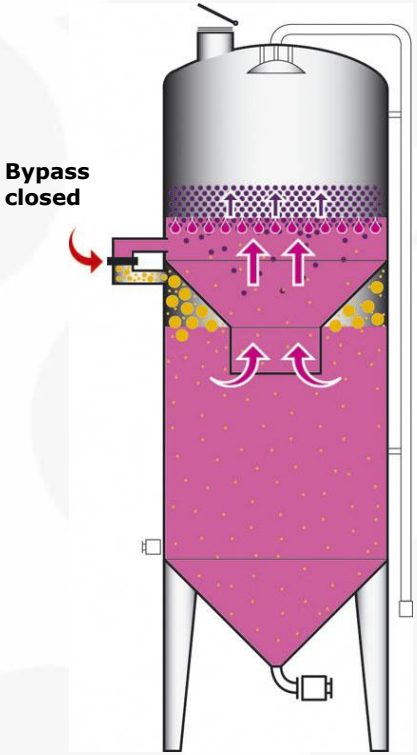
Film 3

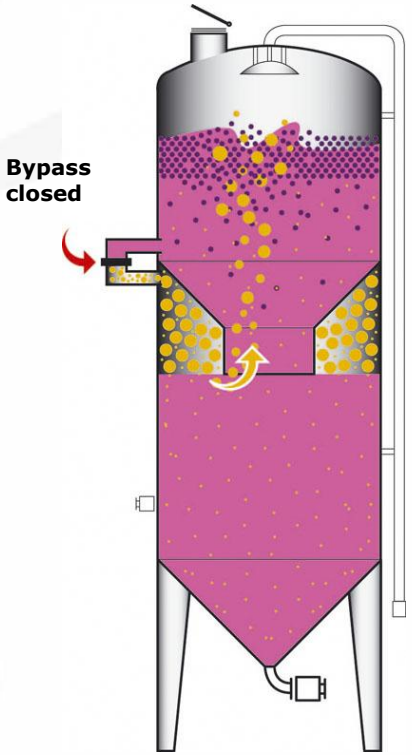
Step 3

For a more vigorous stirring action, **you only need to open the bypass and a large amount of gas will soon get to the top room, pushing the liquid mass energetically, which will stir the cap of marc in a delicate and efficient way.**
The gap below the diaphragm, now empty, will be flooded by the liquid. This causes the cap of marc to fall suddenly, and the seeds accordingly.

How does Ganimede® work?







Step 4 DELESTAGE (RACK AND RETURN)

The sudden fall in level brings the cap of marc, now soaked in the liquid, to rest on the diaphragm and release all the noble substances extracted from the skins. **This reproduces the STATIC DRAINING typical of délestage** in a controlled environment and with no use of pumps.
The large amount of seeds gathered at the bottom of the tank can now be easily excluded from the extraction process: they are evacuated through a special valve provided at the bottom of the conical tank

Step 5

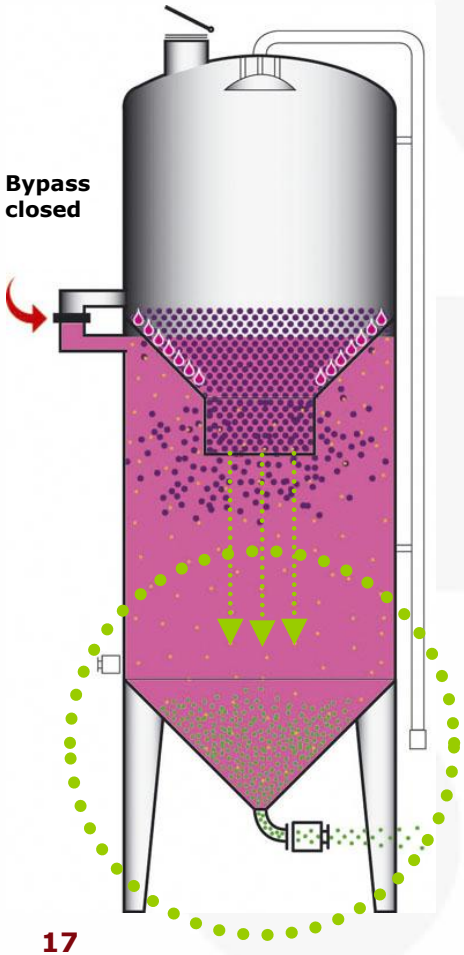
As soon as the bypass is closed again, the CO_2 relentlessly produced during fermentation soon saturates the gap again, and pushes the cap of marc back to the top.
As no bubbles stir the cap yet, **the STATIC DRAINING action continues during this step too.**

Step 6 The process starts again.

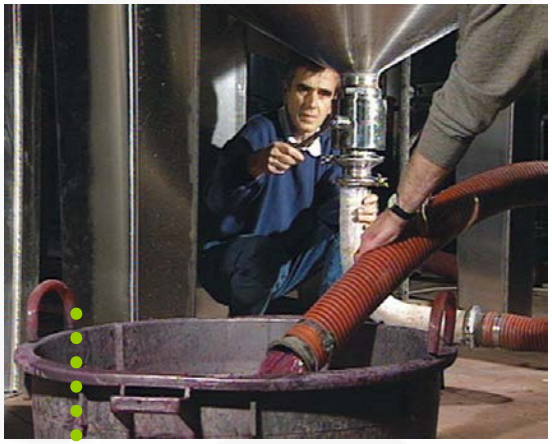
With the gap filled with CO_2 again, the whole process starts anew, generating the natural turbulence that, stirring softly the cap, prevents the marc from compacting and **guarantees an efficient non-aggressive extraction of the noble substances only.**
It is now possible to open the bypass anytime you need a more vigorous action on the cap.

Exclusion of seeds from winemaking. An exclusive feature of Ganimede®.

Ganimede® proves again its ability to encourage a SELECTIVE EXTRACTION of the noble substances from the grape skins.



The typical turbulence of **Ganimede®** method causes large amounts of seeds to fall by gravity to the bottom of the tank. If the Winemaker considers it adequate, these seeds can be easily removed through the special valve at the bottom of the fermenter.



metodo Ganimede®

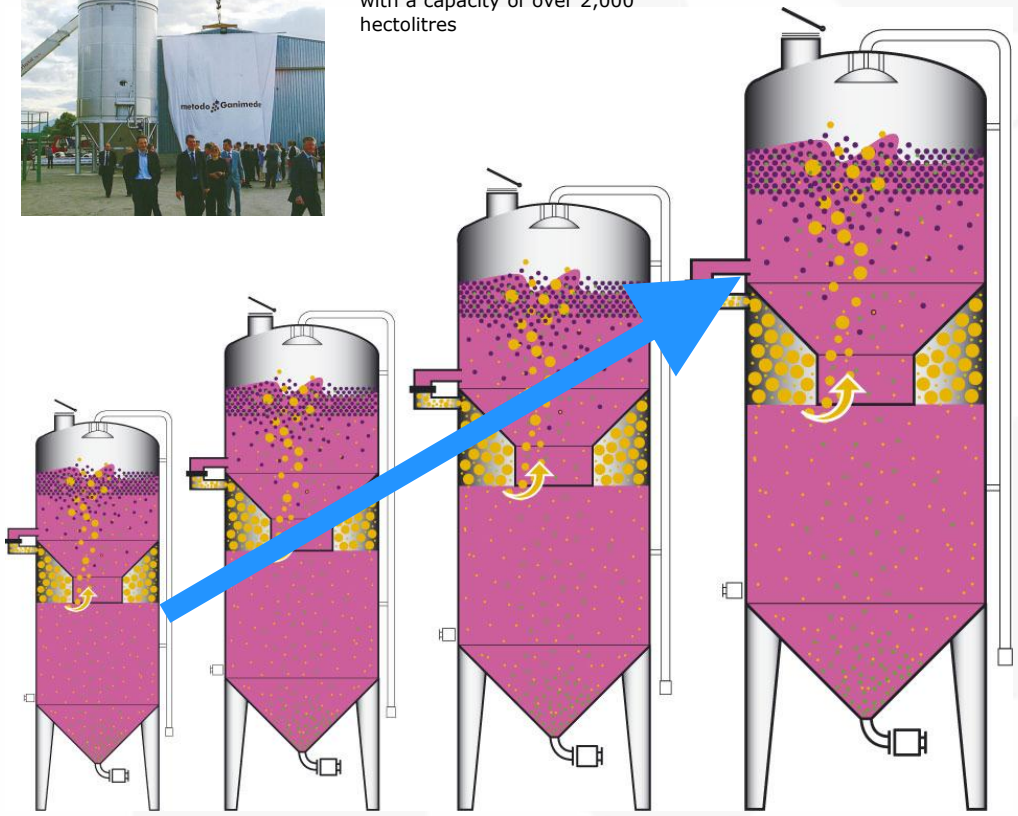
Ganimede® is the only fermenter worldwide enabling to solve the problem of seeds during winemaking.

The seeds (accounting for 3 to 5 percent of the dry marc) are often a source of bitter and aggressive tannins and, depending on the year and the grape variety, they should be considered carefully. In traditional fermenters, the mechanical washing generated by pumping the juice over, combined with the effects of high temperature and alcohol, will break up the greasy cuticles coating the seeds and cause the substances contained in the seeds to blend in the must-wine. Unless unripe seeds (which may come in large number at certain years) are separated in due time, they will pass their bitter and astringent tannins on to the product. This will lead to inelegant, astringent, herbaceous-scented wines, which would need far more refining, and make costs rise and cause marketing time to be delayed.

Il Fermentatore Innovativo.

Big and small Ganimede® fermenters: Good wine from a big vat!

The largest **Ganimede®** fermenter worldwide:
15 metres high, 5 metres wide, with a capacity of over 2,000 hectolitres



From 30 hl… **…to 2,000 hl!**

The excellent performances of Ganimede® Small series of vats (35 to 600 hectolitres) are now widely confirmed in the Big range (600 to 2,000 hectolitres). Unlike traditional systems, the size of Ganimede® fermenters does not affect the quality of the end product, because the typical turbulence of the fermenter is proportional to the size of the vat and the amount of mass: a larger vat means a larger gap, then a larger amount of carbon dioxide developed during fermentation, and so on. **Amazing results can therefore be obtained with a 1,800 hl-wide vat, instead of three 600 hl-wide traditional fermenters**.

Metodo Ganimede® can stir thoroughly and efficiently also huge amounts of marc, up to 2.5 metres wide, for 100% of grapes. This means that, when processing the same grapes, the wines produced in large Ganimede® fermenters are fairly better in quality than the wines made in large traditional fermenters.

Il Fermentatore Innovativo.

4.Délestage (rack and return) with Ganimede®

From tradition to innovation.

Il Fermentatore Innovativo.

Benefits of "Délestage" with Metodo Ganimede®

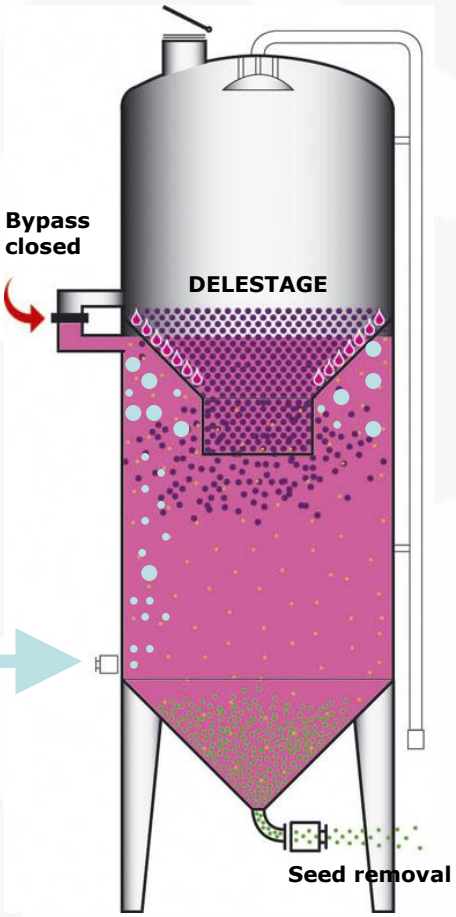
Délestage and must oxygenation.

The oxygenation of the liquid mass recommended in the protocol on délestage issued by ICV in Montpellier can be carried out with **Ganimede®**, at the Winemaker's will, in a controlled and scientific way, by injecting O_2 from a special valve provided for the use of technical gas.

This way only can oxygen remain trapped into the gap, at close contact with the liquid at the amount and for the time desired and fixed by the Winemaker.

O_2

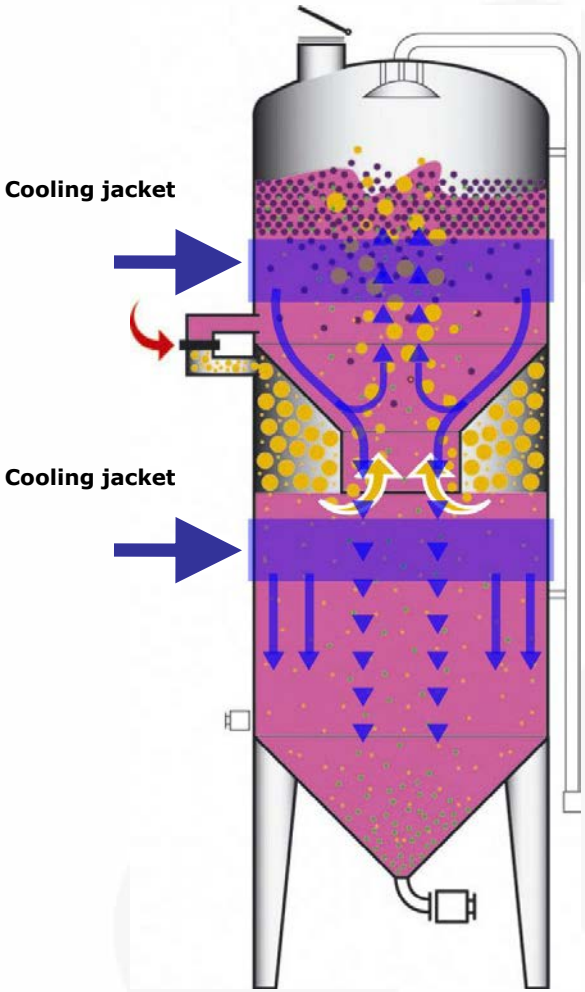
(See chapter on **USE OF TECHNICAL GAS**)



The whole operation can be set in AUTOMATIC mode through a control panel and repeated 3 to 12 times daily, with no staff needed!

The turbulence alone causes the seeds to fall by gravity and gather at the bottom of the vat, where they can be easily removed and excluded from extraction or, if ripe, easily included in the process. Moreover, Ganimede® offers the chance to have a scientific and not empirical control of the oxigenation of the mass, a step entrusted to the Winemaker's sensitivity and actual production needs.

Temperature control with Metodo Ganimede®



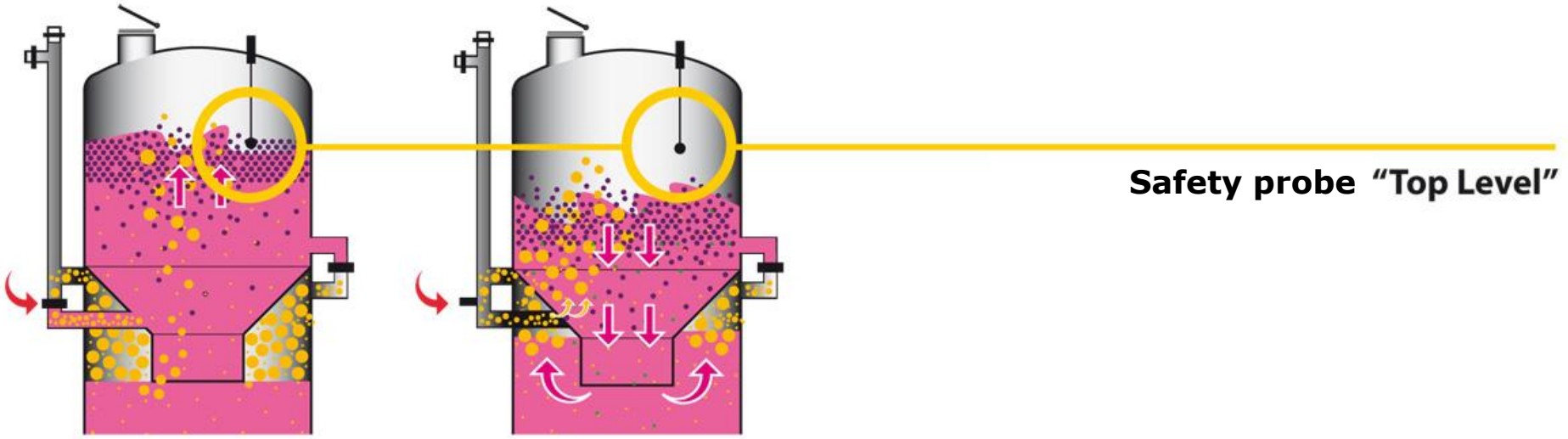
Temperature control in traditional fermenters is only empirical and uneven. Cooling jackets lower the temperature of the liquid neighbouring the vat walls, while the central mass is too faraway to get cooled. In fact, the cool liquid near the walls is heavier and tends to fall down, because of the well-known laws of physics, this means that the central mass (more distant from the perimeter) and the higher mass of the cap cannot be adequately cooled. To counter this problem, in traditional fermenters you are forced to use pumping over every few hours to pump the cooler liquid from the bottom of the tank (this liquid can be 10 degrees cooler than the liquid in the cap) and sprinkle it over the cap. This generates sudden changes in temperature, which will stress the yeasts and risk to slow down fermentation and cause acetaldehyde to develop.

On the contrary, the distinctive turbulence and the special configuration inside Ganimede® fermenters allow to have an EVEN and CONTROLLED temperature in the whole mass.
The part of liquid touching the walls of **Ganimede®** vat gets cool and falls down to the funnelled diaphragm, **then moves to the centre of the mass.** At this point, some of the cool liquid continues to fall and cools the central mass below it (contributing to the cooling action by the lower jacket), while gas bubbles escaping from the saturated gap draw some of the cool liquid with them to the top room, so that it cools down the higher liquid in the cap, in a smooth and not stressful way.

Keeping temperature under control is obviously a great advantage, as it also encourages the solubility of technical gases into must/wine.
The revolutionary concepts of Metodo Ganimede® lend a hand here too.

Il Fermentatore Innovativo.

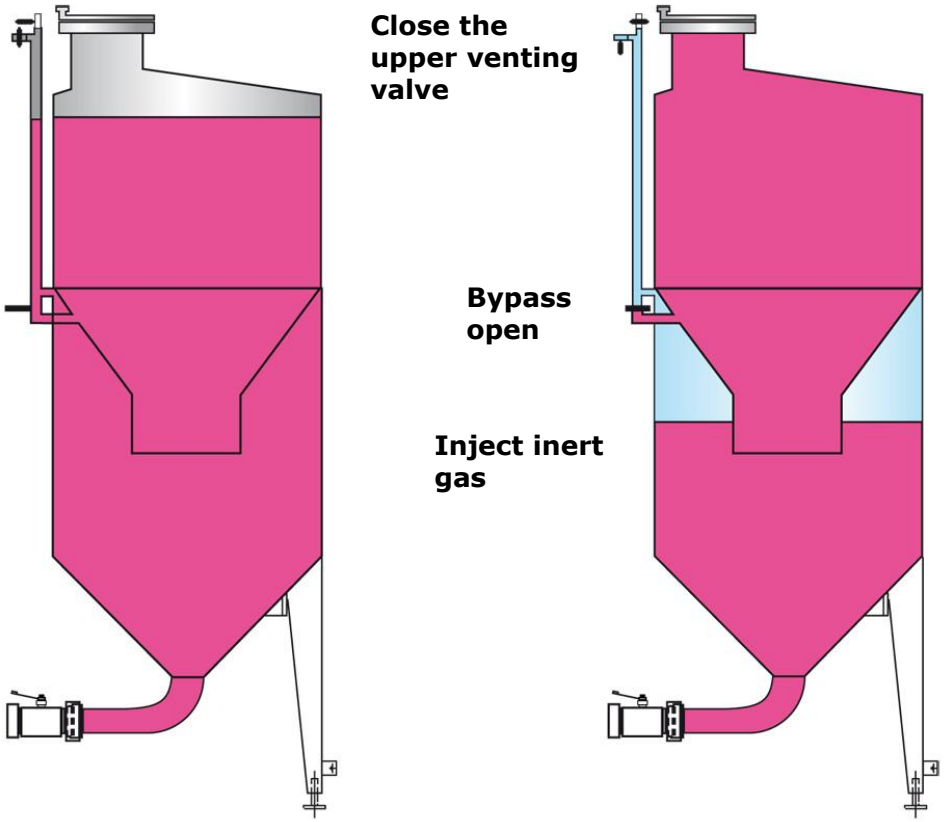
"Top Level" Safety Probe



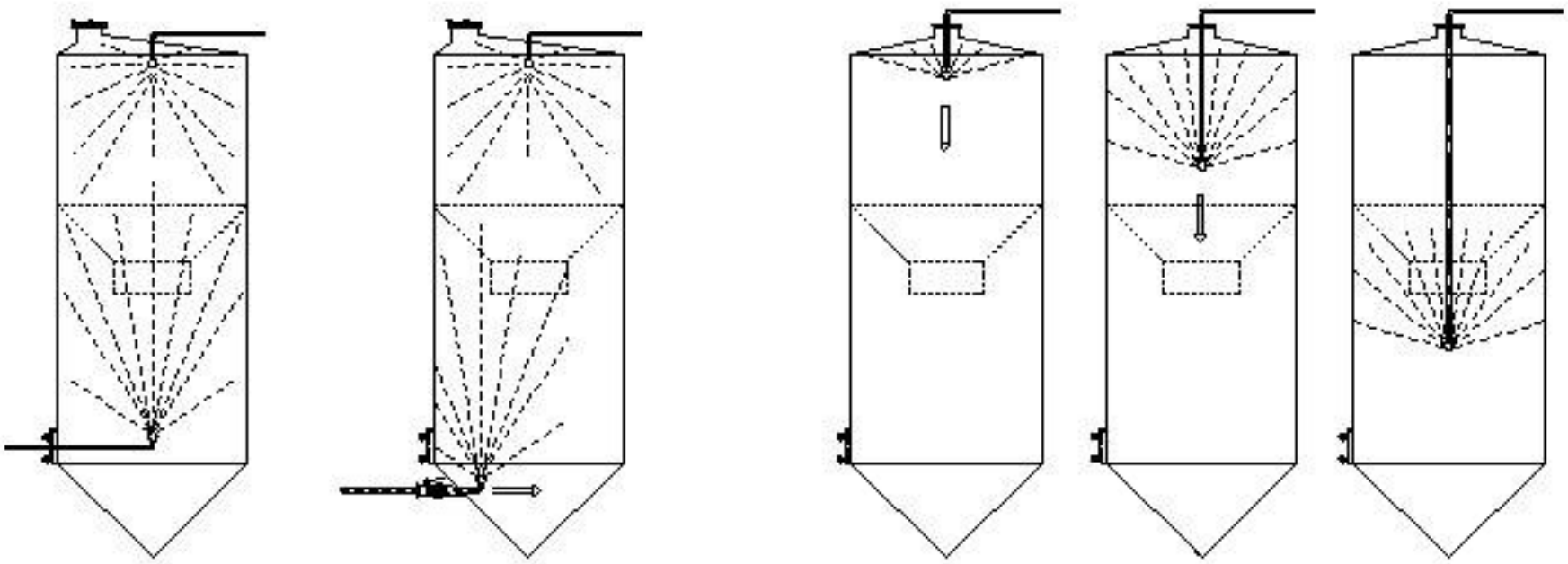
Ganimede fermenters can be equipped with a Top Level probe that performs the dual function of detecting the maximum level during the filling stage and preventing unwanted overflowing during the fermentation stage. In the first case, the probe operates as a load level sensor, in the second it operates the instantaneously opening of the bypass, causing an immediate lowering of the level of about 1 meter if it exceeds the planned limit, allowing maximizing the filling level.

Flexible wine storage with “always full” option.

The «always full» option allows taking advantage of the available volume under the diaphragm, by using the technique of moving the liquid through the injection of inert gas.
Once Ganymede® is filledup for storage, the bypasses are closed and the inert gas is injected under the diaphragm through a special valve.
The injected gas will raise the level of the wine until, after having pushed out all the air, it reaches thelevel set in the upper cover. Thus, you can protect and preserve your wine in different ways, depending on your needs.



Cleaning



At the end of the drawing off process, Ganimede® is relatively clean and free from residues. Only a small number of practical, efficient operations are required to wash Ganimede® unit thoroughly.

The fermenter is washed as follows:
- use a **spray ball** and start washing the fermenter as shown in the pictures below.

Ganimede® is now ready to be used as a storage tank.

5.Use of Oxygen and other Technical Gases in winemaking.

From empirical theory to scientific practice.

Il Fermentatore Innovativo.

Use of technical gases in winemaking.

The practice of oxygenating the must has been largely reconsidered over the latest years, because it encourages yeasts to proliferate and colour to fix.

The issue, however, is often discussed in a simplistic and empirical way, like for instance when speaking of "oxygenation of must/wine".
The use of oxygen, which can be really precious, should always be considered very carefully in terms of amount, time, timing of introduction, and always with an eye to the original grapes you are working, the type of wine you want to obtain and the conditions where you are operating: the end result must be **OXYGENATION, NOT OXIDATION**!

Then, the use of oxygen or any other technical gases should ALWAYS be kept under CONTROL and not be left to approximation (you cannot just expose the mass to air to get "oxygenation"!). The Winemaker should decide when to use it and have the correct equipment guaranteeing that the gas is used following SCIENTIFIC criteria, i.e. certain, repeatable and reproducible.

Use of oxygen during fermentation

- **PROLIFERATION OF YEASTS**

Metodo Ganimede® offers the winemaker the chance to introduce filtered air at the start of fermentation, so as to create the ideal conditions to encourage yeast proliferation.

- **POLYMERIZATION OF TANNINS**

Metodo Ganimede® allows to use oxygen in a controlled way during the central and final steps of fermentation, to encourage tannin polymerization and therefore make wine even smoother and more palatable, while shortening refining time.

- **STABILIZATION OF COLOUR**

A scientific and not empirical management of the use of oxygen in fermentation with **Metodo Ganimede®** allows to encourage fixation of the extracted pigments.

Requirements for the interaction of gas and must/wine.

The ideal **PHYSICAL and CHEMICAL conditions to have the gas introduced interact with must-wine** and therefore guarantee that using such gas in winemaking will be really efficient, are as follows:

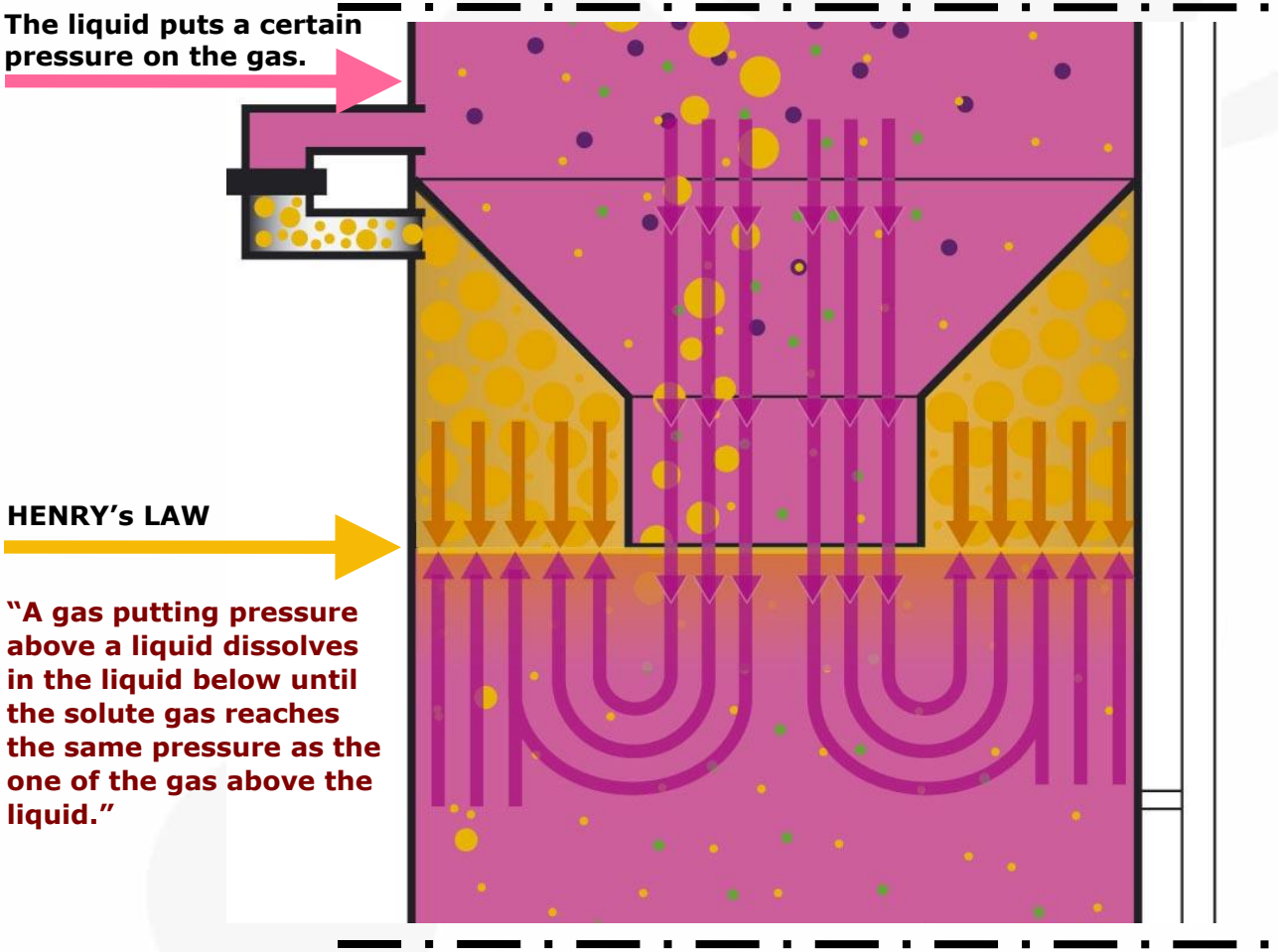
1- Adequate pressure to encourage and guarantee gas solubility
(Henry's Law)

2- Time of contact long enough to guarantee that the gas will interact with must-wine

3- Area of contact wide enough to affect all the product

4- Ideal temperature
(low temperature makes it easier for gas to dissolve in a liquid).

HENRY'S LAW and Metodo Ganimede®



With **Ganimede®** fermenters, the use of any technical gas can be managed in a **SCIENTIFIC** way, following a physical principle known as **"HENRY'S LAW".**
In fact, a technical gas introduced below the diaphragm will be kept under pressure by the liquid above and will in turn put an equal pressure to the liquid.
For this reason, **the gas will dissolve into the liquid and bind intimately to it, according to CONTROLLABLE AND REPEATABLE PARAMETERS, which the Winemaker can REALLY run at his/her own will,** with no improvising or surprises. Moreover, when the bypass is opened, the whole mass of gas, which has been kept under pressure until then, is released onto the cap of marc. This involves a thorough stirring action, strengthened by **decompression** following the sudden fall in pressure (e.g. A bottle of sparkling wine being uncorked).

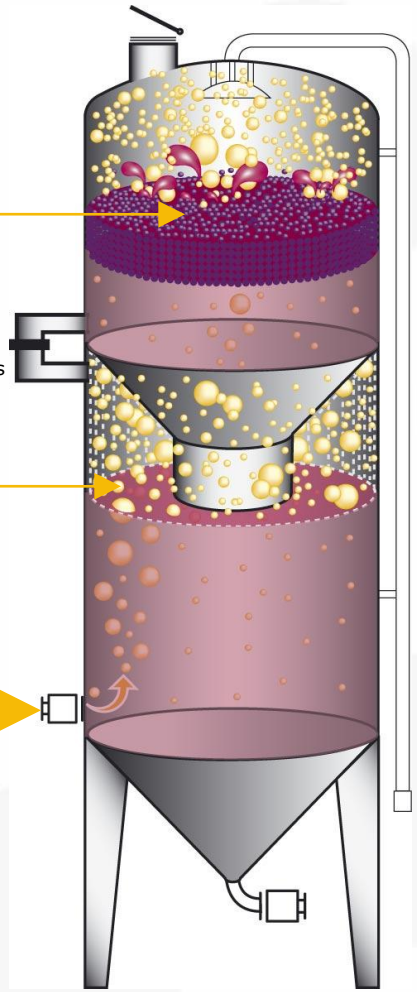
metodo Ganimede®

Use of Technical Gases with Ganimede®

The excess gas escapes through the neck of the diaphragm, stirring the mass and guaranteeing its **homogeneity**

The **area of contact** between the liquid and the **pressurised gas** (0.2-0.4 Bar) under the diaphragm is equal to 80-85 percent of the whole surface

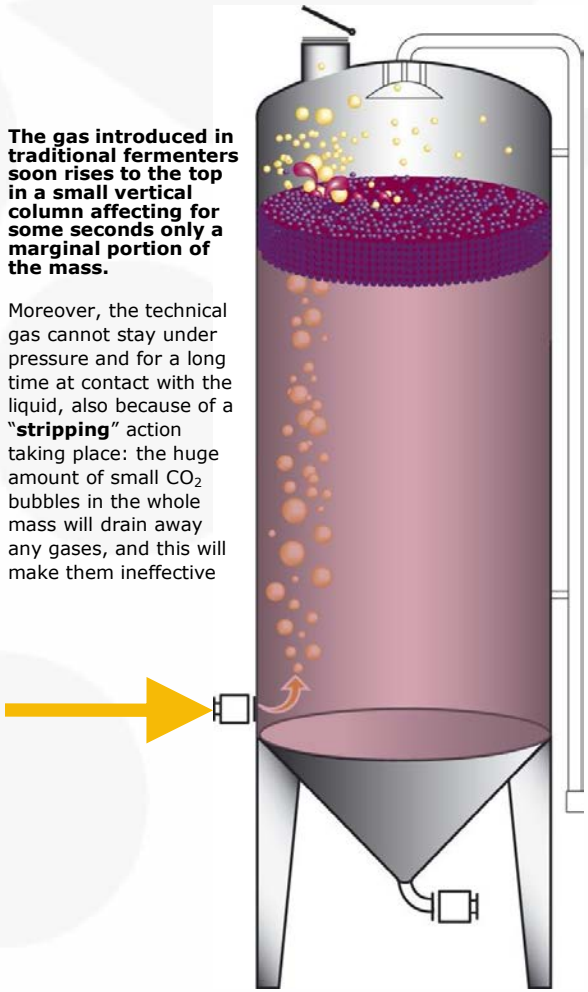
Once introduced, the gas will gather under the diaphragm, **under pressure** and for a long **time**



Ganimede®

The gas introduced in traditional fermenters soon rises to the top in a small vertical column affecting for some seconds only a marginal portion of the mass.

Moreover, the technical gas cannot stay under pressure and for a long time at contact with the liquid, also because of a "**stripping**" action taking place: the huge amount of small CO_2 bubbles in the whole mass will drain away any gases, and this will make them ineffective



Traditional vat

Only Ganimede® causes the technical gases introduced through the special valve to INTERACT with the liquid, meeting the ideal PHYSICAL and CHEMICAL conditions (pressure, area of contact, time of contact, temperature), which are needed to ensure the action of the gases themselves is EFFICIENT, CERTAIN and REPEATABLE.

In traditional fermenters, on the contrary, the gases pass through the liquid very fast and cannot stay at contact with it for a time long enough, so that they disperse in the environment very soon and affect only a small portion of the mass, without binding intimately to it.

Not to mention a very poor practice to expose the liquid indiscriminately and dangerously to external air, which is too often empirically named "oxygenation of the mass", while it does not offer any scientific control over the process, or any adequate control over its results

Il Fermentatore Innovativo.

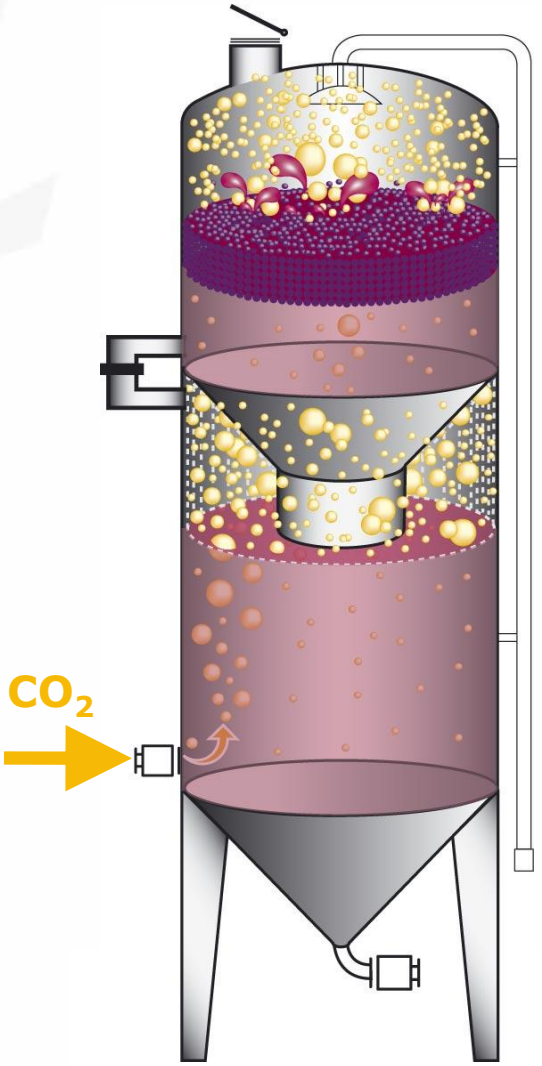
Dynamic Skin Contact before and after Fermentation.

The characteristic turbulence of **Metodo Ganimede®**, whereby the noble substances contained in the grapes only are selectively extracted, is called **DYNAMIC SKIN CONTACT**.

The process takes place thanks to an intimate and delicate stirring of the mass by the huge amount of carbon dioxide developed during fermentation.

But then, what happens BEFORE or AFTER fermentation, when we do not have any spontaneous CO_2? This is exactly the time when the controlled and efficient use of technical gases in **Ganimede®** fermenters proves to be most important. In fact, you will only need to introduce some carbon dioxide from an external bottle through the special valve provided for introducing technical gases. This way, you'll saturate the room under the diaphragm and reproduce artificially the typical turbulence of **Metodo Ganimede®** even when there is no CO_2 produced by fermenting grapes.

The **CO_2** gas, beside stirring and blending the mass thoroughly, will make an important **extractive-solvent, and antibacterial-antioxidant action on 100 percent of the product.** This offers the Winemaker the chance to anticipate or delay extraction, in a SAFE and CERTAIN way.



Processing white grapes with Metodo Ganimede®

Cold Dynamic Skin Contact
for white wines, clarets and special red wines.

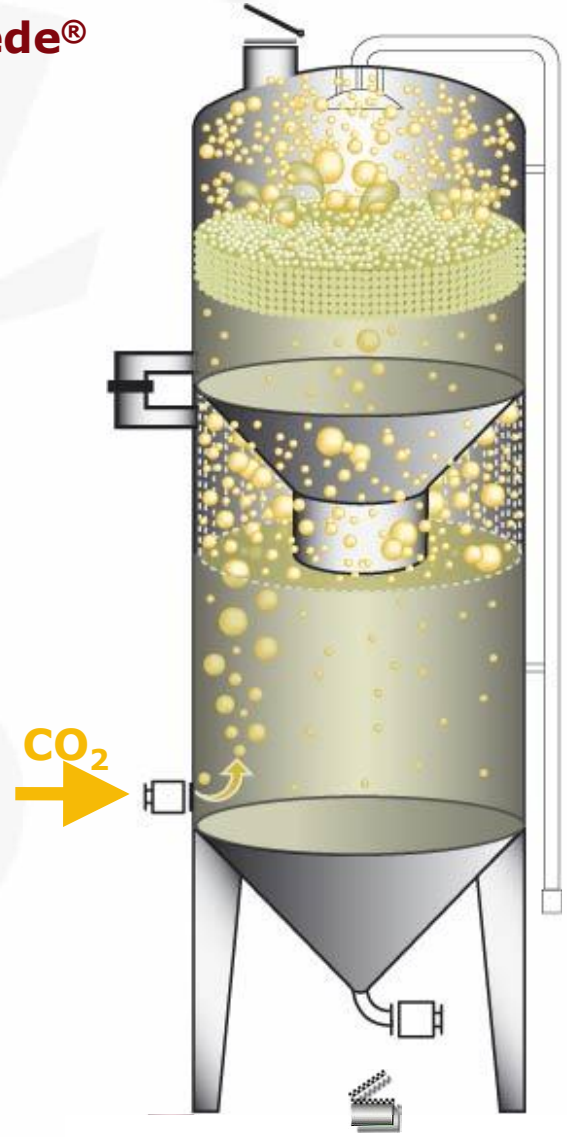
The efficient use of technical gases with Metodo Ganimede® illustrated above finds an important application in aromatic white winemaking.

Particularly sensitive to oxygen, white grapes can be processed with Metodo Ganimede® in an environment saturated with CO_2 and therefore protected against any risks of oxidation and bacterial proliferation.

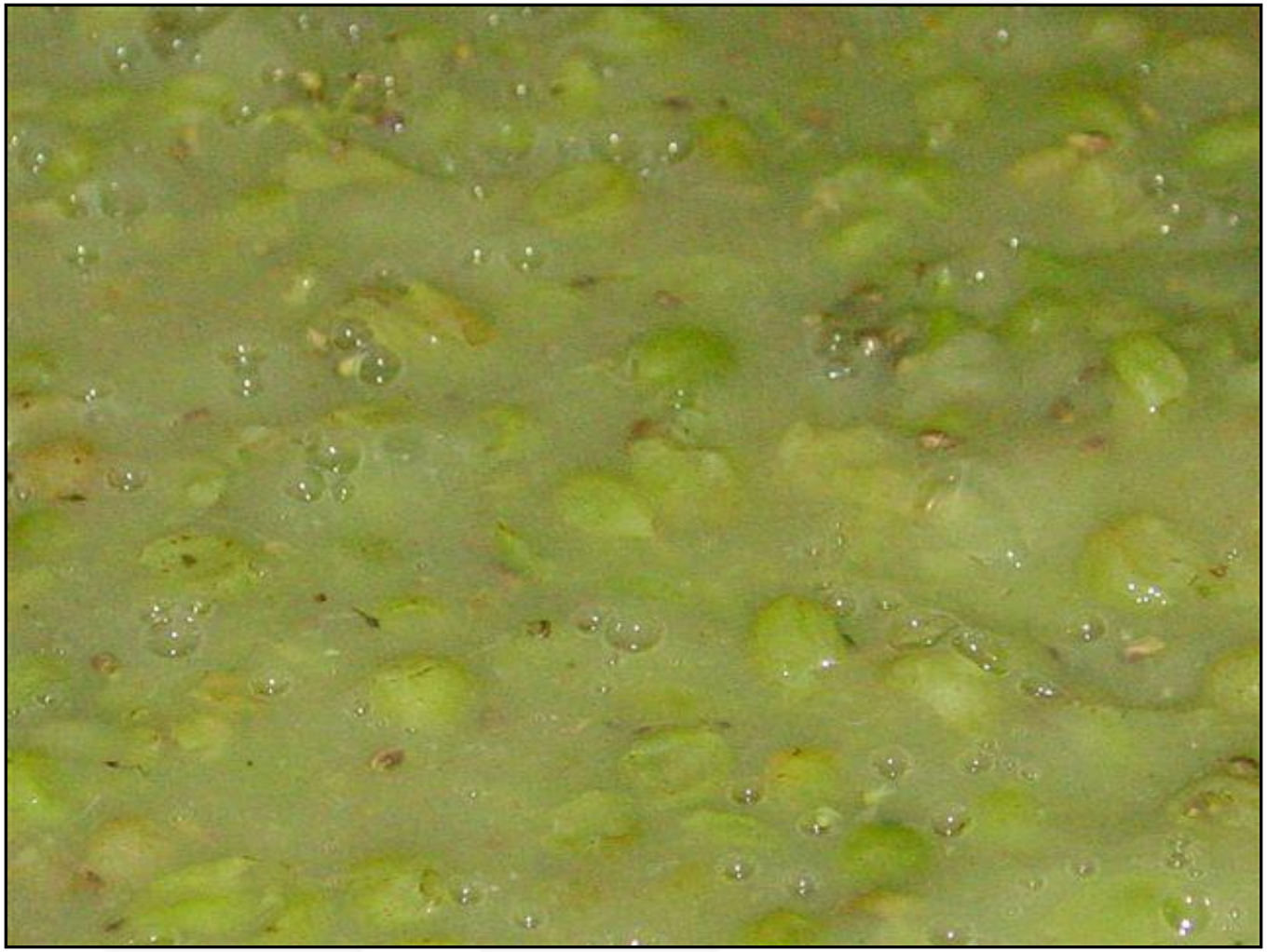
In fact, **Ganimede®** vats can be filled with CO_2 before they are filled with grapes, keeping the bypass closed. The gas will gather in the gap and, after the liquid will have be introduced, it will be trapped there under pressure and start dissolving slowly into the liquid. This way, the **CO_2** will make a **SELECTIVE EXTRACTIVE-SOLVENT** and **ANTIBACTERIAL-ANTIOXIDANT ACTION** (not indiscriminate as SO_2), and guarantee a considerable extraction and protection of the aromas and their precursors contained in the skins.

The excess gas escapes in big bubbles through the neck of the diaphragm and stirs softly and efficiently the skins in the cap. Thanks to the intimate contact with the liquid, the skins will then actually contribute to extraction.

Several wineries are currently using **Metodo Ganimede®** for making white wines too. With a relatively short cold skin contact (6-12 hours), they could obtain an efficient degree of extraction of the noble substances only, and therefore enhance the sensory quality of their wines.
This highlights the considerable softness and selectivity of this system which guarantees CERTAIN RESULTS, and considerable cost savings, since one fermenter can be filled several times and be then used again for red winemaking.



Film 6



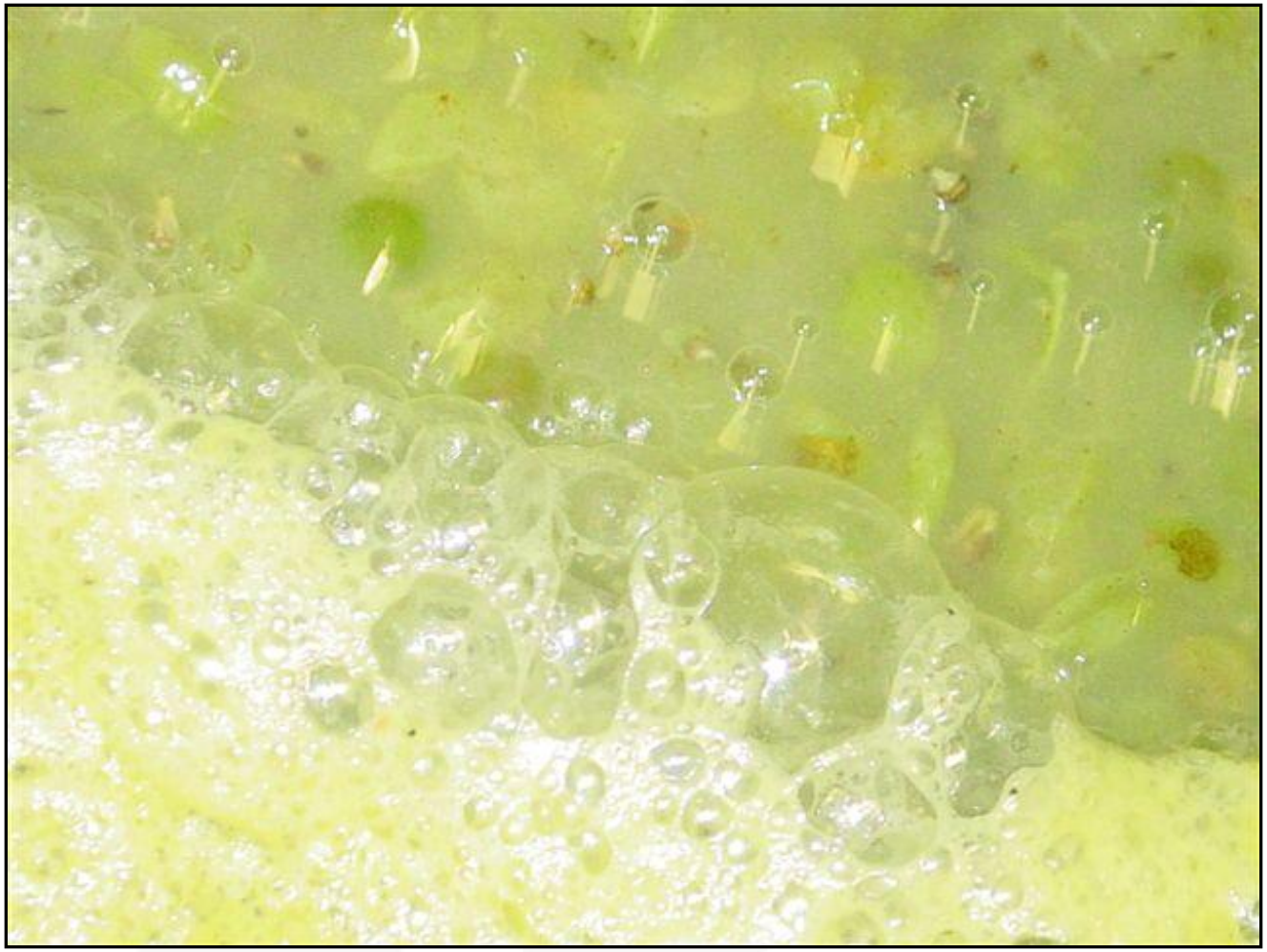
Natural Antioxidant Substances: Glutatione, Cinnammics Acids…

Less SO2.

Il Fermentatore Innovativo.

Ganimede®

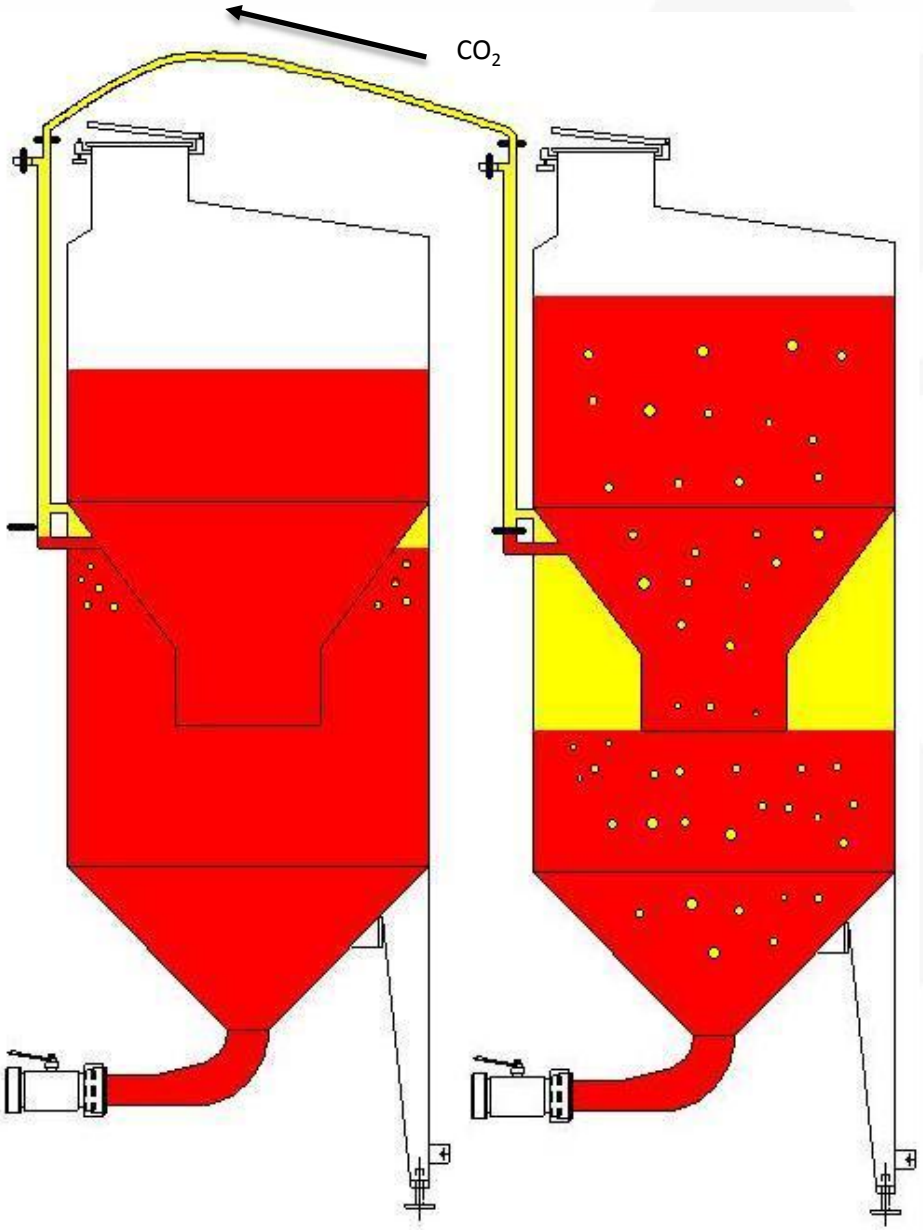
metodo Ganimede®



Il Fermentatore Innovativo.

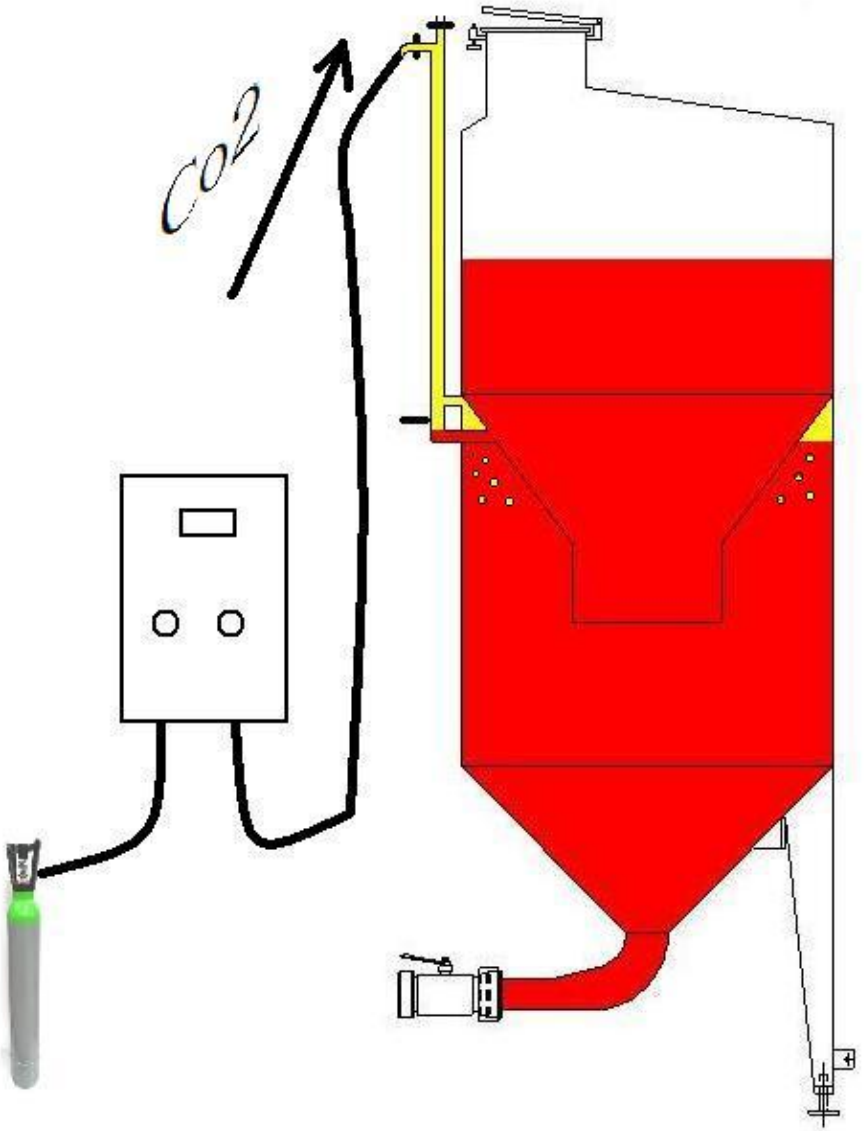
MANUAL MANAGE

metodo Ganimede®



Il Fermentatore Innovativo.

AUTOMATIC MANAGE



Il Fermentatore Innovativo.

CONVERSIONS OF EXISTING TANKS

metodo Ganimede®

Il Fermentatore Innovativo.

CONVERSIONS OF EXISTING TANKS

Cave Taillefer SA - Charrat
(Canton Vallese) SUIZA
2009 n. 6 mod. de 5.000 y 10.000 lt.
2010 n. 7 mod. de 30.000 lt.

Coop. Jesus del Perdon Manzanares
(Castilla La Mancha) España
2006 n. 1 mod. de 100.000 lt.
2007 n. 4 mod. de 100.000 lt.
2010 n. 1 mod. de 175.000 lt.
2011 n. 10 nuevos de 115.000 lt.

Il Fermentatore Innovativo.

CONVERSIONS OF EXISTING TANKS

Matasci Vini SA – Tenero (Locarno)
Canton Ticino SUIZA
2008 n. 2 mod. de 31.000 litros
2010 n. 2 mod. de 31.000 litros
2011 n. 2 mod. de 31.000 litros

Bodegas Leza Garcia - Uruñuela
(La Rioja) España
n. 3 mod. de 50.000 litros

Il Fermentatore Innovativo.

CONVERSIONS OF EXISTING TANKS

COOP. NTRA. SRA. DEL ROSARIO
El Provencio (CUENCA) España
2010 n. 7 mod. of 100.000 lt.
2011 n. 6 mod. of 100.000 lt.

Bodegas GRUPO SAN VALERO
Cariñena (Zaragoza) España
n. 2 mod. of 60.000 lt.

Il Fermentatore Innovativo.

OTHER CONVERSIONS OF EXISTING TANKS

COOP. VECCHIA CANTINA DI MONTEPULCIANO SIENA (TOSCANA) ITALIA
The largest Cooperative winery of Tuscany
2007 n. 12 modificaciones of 120.000 lt.
2009 n. 11 modificaciones of 120.000 lt.

COOP. VINI TIPICI ARETINI AREZZO (TOSCANA) ITALIA
2008 n. 6 modificaciones of 100.000 lt.
2008 n. 8 modificaciones of 70.000 lt.

COOP. NTRA. SRA. DE MANJAVACAS MOTA DEL CUERVO (CUENCA)
2011 n. 10 modificaciones of 140.000 lt.

Il Fermentatore Innovativo.


ESTATE GROWN | MT BARKER WA
CABERNET SAUVIGNON 2004
Fantastic Cabernet expression, rich in colour and flavour. Displaying glorious blackcurrant, cassis, spice and chocolate. Earthy, fine and structured, long lasting tannins. Harmonious integration of quality oak. Finishes smooth and elegant. Cellar for 5-7 years
This premium wine made exclusively using
metodo Ganimede
for a more intense flavour and velvety palate
ALC/VOL 14.0%
APPROX. 8.3 STD. DRINKS
PRESERVATIVE 224 ADDED.
MAY CONTAIN TRACES OF
NUTS USED IN TRADITIONAL
FINING. PRODUCED BY
SPENCER WINE JOINT
VENTURE. MANAGED BY THE
TURLOCH UNIT TRUST
SPENCER ROAD, NARRIKUP,
WESTERN
9 332580 005443

novativo.

Ganimede

metodo Ganimede®

Gianni Masciarelli winery

Abruzzo - Italy

Awarded by the guide
Gambero Rosso as

“ Winery of the Year 2004”

n. 31 Ganimede vinificators

Il Fermentatore Innovativo.

Small capacities

Viveros Coop. Rauscedo
CASA 40
Rauscedo PN (Friuli) – ITALIA
n. 4 – 250 lt.

Il Fermentatore Innovativo.

Ganimede

metodo Ganimede®

Coop. Agr. Santa Quiteria

Higueruela Albacete (Castilla-La Mancha)

n.11 of 165.000 lt..

Il Fermentatore Innovativo.

Coop. La Virgen de las Vignas de Tomelloso

(La Mancha) La mas grande Bodega de Europa

n. 18 of 200.000 lt.

Il Fermentatore Innovativo.

Ganimede

Coop. Agr. Santa Cruz

Alpera Albacete (Castilla- La Mancha)

n. 15 of 200.000 lt.

Coop. Agr. Fuensalida

Toledo (Castilla-La Mancha)

n. 5 of 165.000 lt.

Il Fermentatore Innovativo.

Ganimede

Inagroga S.A.T. 2485

Los Santos de Maimona
(Badajoz)

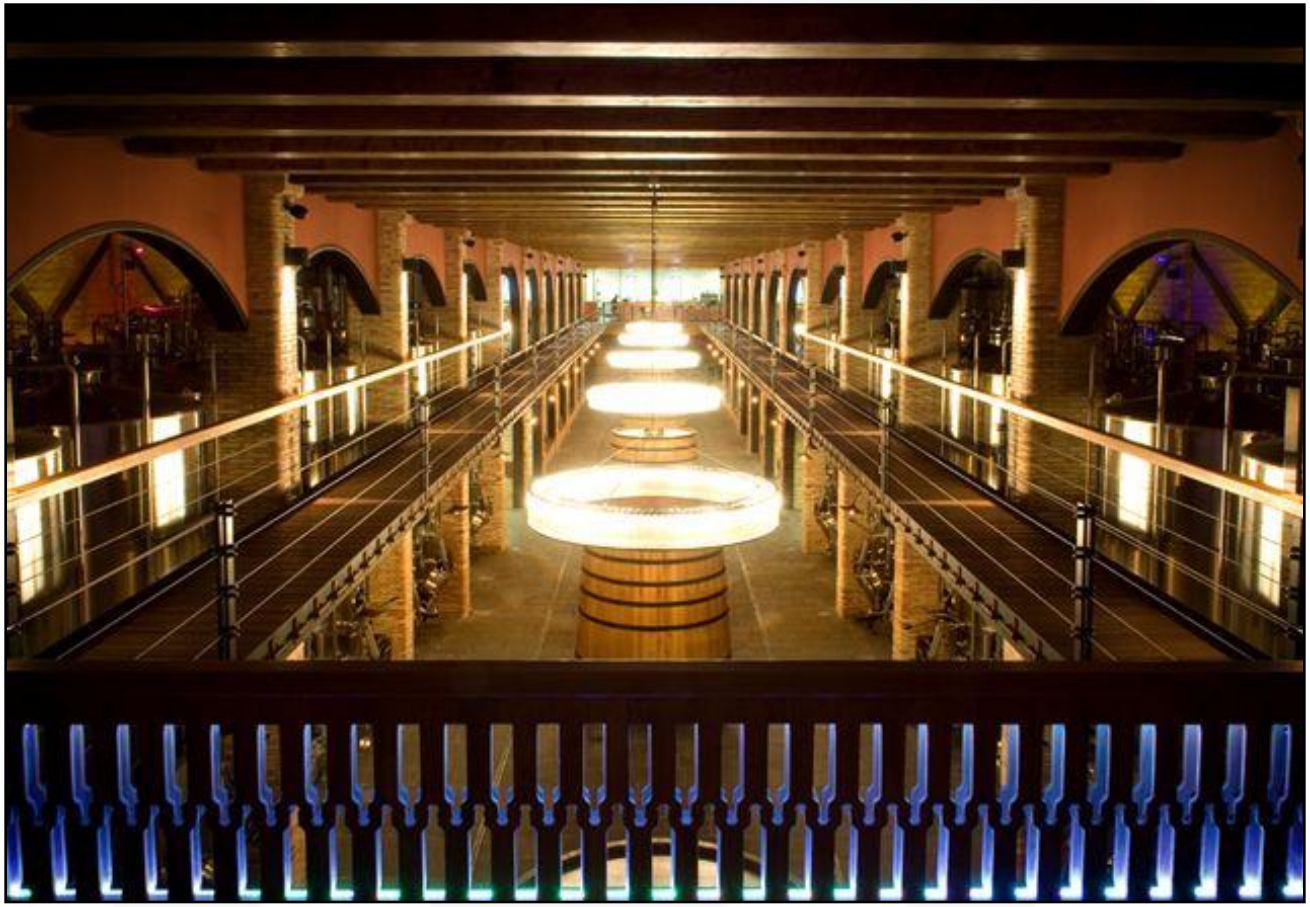
n.6 of 100.000 lt.

Coop. Agr. San Antonio Abad

Villamalea Albacete(La Mancha)

n.4 of 165.000 lt.

Il Fermentatore Innovativo.



Bodegas Stratvs

La Geria- Lanzarote – Islas Canarias – ESPANA

n.3 – 1.500 Lt.; n.1 – 3.000 Lt.; n.5 – 11.000 Lt.; n.18 – 15.000 Lt.

Il Fermentatore Innovativo.

Ganimede

metodo Ganimede®

Casa Agricola
Ermelinda Freitas Palmela
Portugal
2003 n. 2 Ganimede of 25.000 lt
2008 n. 14 Ganimede of 60.000 lt

Coop. Agr. Reguengos Monsaraz
(CARMIM) Reguengos de Monsaraz
Portugal
2008 n. 1 Ganimede of 90.000 lt
2010 n. 5 Ganimede of 150.000 lt.

Il Fermentatore Innovativo.

Ganimede®

metodo Ganimede®

Cooperativa Agricola Santo Isidro Pegoes

Portugal

2010 n. 12 Ganimede of 61.000 lt

Adega Cooperativa de REDONDO

Portugal

2010 n. 1 Ganimede of 150.000 lt.

2011 n. 9 Ganimede of 150.000 lt.

Il Fermentatore Innovativo.

Adega Cooperativa de Vidigueira
Portugal
2010 n. 1 Ganimede of 50.000 lt a prueba

2011 n. 6 Ganimede of 100.000 lt.

Adega Cooperativa
de B O R B A
Portugal
2010 n. 1 Ganimede of 50.000 lt.
2011 n. 27 Ganimede of 50.000 lt.

Il Fermentatore Innovativo.

Le Rive di Bonato Gino

Negrisia (Veneto) ITALIA

n. 6 of 40.000 lt.

n. 2 of 15.000 lt.

metodo Ganimede®

Agricola Mazzolada

Lison di Portogruaro (Veneto)
ITALIA

n. 8 of 26.000 lt.

Il Fermentatore Innovativo.

metodo Ganimede®

Tommasi Viticoltori
Pedemonte di Valpolicella (Veneto)
ITALIA

n. 8 of 40.000 lt.

Il Fermentatore Innovativo.

Fattoria dei Barbi
di Stefano Cinelli Colombini
Montalcino (Toscana) ITALIA
n. 9 of 26.000 lt.

Il Fermentatore Innovativo.

Santa Margherita S.p.A.
Fossalta di Portogruaro (Veneto)
ITALIA

n. 2 of 16.000 lt.
n. 5 of 25.000 lt.
n. 3 of 35.000 lt.
n. 4 of 90.000 lt.

SLOPING bottom

Famiglia Anselma
Barolo *(Piemonte) – ITALIA*

Il Fermentatore Innovativo.

Sloping bottom with pinch valve and descharge directly into the press

Venica & Venica
Dolegna del Collio (Friuli) – ITALIA

Il Fermentatore Innovativo.

CONICAL bottom

Château de Cransac
(Sud- Ouest)- FRANCIA
n. 8 of 21.000, n. 4 of 14.000, n. 2 of 8.200 lt.

Il Fermentatore Innovativo.

EXCENTRIC CONICAL bottom

Domaine Faiveley
(Bourgogne) - FRANCIA
n. 8 of 12.000 lt.

Il Fermentatore Innovativo.

Coop. Ing. Giagnoni
(Mendoza) - ARGENTINA
n. 18 of 40.000 lt.

Coop. Loncomilla *– CHILE*
n. 8 of 100.000 lt.

Varga Pincészet Kft *– HUNGARY*
n. 10 of 60.000, n. 3 of 50.000, n. 4 of 40.000 lt.

Il Fermentatore Innovativo.

Tandou Winery *(Monash) – SOUTH AUSTRALIA*
n. 4 of 80.000, n. 4 of 133.000 lt.

Provins *– SWITZERLAND*
n. 11 of 50.000, n. 7 of 30.000, n. 5 of 15.000 lt.

Il Fermentatore Innovativo.

Ganimede®

metodo Ganimede®

Bodega Montecillo - OSBORNE GROUP
Navarrete (La Rioja) - SPAIN
n. 20 of 105.000; n. 1 of 25.000 lt.

Cant. Coop. di Colognola Gruppo Collis Verona ITALY
2009 n. 2 modif. of 120.000 lt.
2010 n. 6 modif. of 120.000 lt
2011 n. 14 of 200.000 lt.

Il Fermentatore Innovativo.

Wither Hills *(Marlborough) NEW ZEALAND*

2004 n. 1 Ganimede of 15.000 lt.
2009 n. 3 Ganimede of 28.000 lt.
2011 n. 10 Ganimede of 28.000 lt.
2012 n. 4 Ganimede of 28.000 lt.

6.To conclude, all the advantages of Ganimede®.

16 reasons why **Metodo Ganimede®** is innovative.

Il Fermentatore Innovativo.

16 reasons why Metodo Ganimede® is innovative:

1. **Successful control of the cap of marcs**. Also **a cap over 2,5 metres high** will cause no trouble for **Ganimede®**. Only the typical **volcanic stirring** action of this system can guarantee that each single berry is used up completely and prevent the cap from becoming compact and the must from following preferential paths when falling down to the bottom of the tank. There lies the great difference with other fermenters, which is found in the smaller vats of 50 hl capacity too

2. **DELICATE and NOT AGGRESSIVE stirring of the cap of marc**

3. **Fast fermentation and extraction.** At equal conditions with a traditional system, Ganimede® can accelerate production time by about 30%**.**

4. **Homogeneous temperature** is guaranteed inside Ganimede®, because the top jacket, which is found above the diaphragm, cools down the central area, while the lower pocket cools down the peripheral area. The natural turbulence of the system keeps the temperature stable, in the cap too.

5. **All the seeds will fall at the bottom of the vat** thanks to the exclusive stirring of the cap of marcs. Once they are collected at the bottom, the seeds can be separated partially or totally (to eliminate the astringent tannins), depending on the specific needs of the oenologist.

6. **Selective extraction**. Since the seeds can be separated, the extraction process is exclusively aimed at the cap of marcs. In Ganimede, the cap is composed of the **skins only,** where in addition to colouring substances the good tannins are found (extraction of the noble substances only).

7. **Only run juice wine.** Fast and safe descharging (marcs are well separated and can be easily removed with a simple Rotho® pump). In fact, no extractors, screws or hoppers are needed (with no pressed wines or by-products with a high content in methyl alcohol), with less staff needed and total safety conditions for the operators. There is no risk that the product may overflow suddenly and be lost, because the whole process takes place in a closed system, with no dispersion of the aromas.

16 reasons why Metodo Ganimede® is innovative:

8. **Exclusive control of the method called "DYNAMIC SKIN CONTACT" before fermentation** especially suited to white wines, but also applicable to red wines, in a safe and controlled environment.

9. **SCIENTIFIC use of technical gases**. Only **Ganimede®** can run the use of technical gases in a scientific way, i.e. guarantee **safe, repeatable and reproducible results**.

10. **A sizable reduction of the use of SO_2** because the whole process takes place in a controlled environment, i.e. saturated with CO_2.

11. **The wines are lower in volatile acidity**, thanks to an ideal and complete leaching of the whole mass of marcs (the skins are always wet and no fragments of them remain floating on the cap and/or on the walls and parts of the tank, where they may be contaminated by acetic bacteria.

12. **Automation of the whole process** thanks to a control panel allowing to set all parameters, so that Ganimede® fermenter will work alone, with no staff needed.

13. **No use of mechanical devices and minimum power requirements**, with a sizable cut in costs, few risks of technical stops, and no mincing of the grapes.

14. **Easy and rapid cleaning. Ganimede®** is easily cleaned. Moreover, since no auxiliary devices are needed to draw off, the troublesome cleaning of any screws and hoppers is avoided.

15. **Excellent storage tank. Ganimede®** is also an ideal storage tank. It is in fact the only vat which can be used as a variable capacity tank (by injecting an inert gas below the diaphragm, the liquid is pushed upwards – the tank is always full).

16. **Only one operator is needed to run the whole process.**

Ganimede®

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Il Fermentatore Innovativo.