

# **GO** *fermentor*<sup>®</sup>

A REVOLUTION IN WINEMAKING



**BETTER  
QUALITY**

*SINGLE USE  
NO  
Contamination*

*NO air  
minimize  
sulfite  
use*

*Up to  
ONE TON  
of grapes*

*AUTOMATED  
cap  
Management*

**EASY  
TO USE**

*More  
COLOR  
smoother  
BODY*

*Quick  
Setup*

*Labor  
Saving*

**COST  
EFFECTIVE**

**GREEN**

**NO  
Waste  
Water**

*BUY  
or  
RENT*

*No  
Installation  
Cost*

*80%  
LESS Water  
Usage*

*NO  
Washing*

# *A Revolution in Winemaking*

The *GOfermentor* brings groundbreaking technology to the age-old art of winemaking, providing greater control of fermentation parameters, resulting in better quality wine, every time.

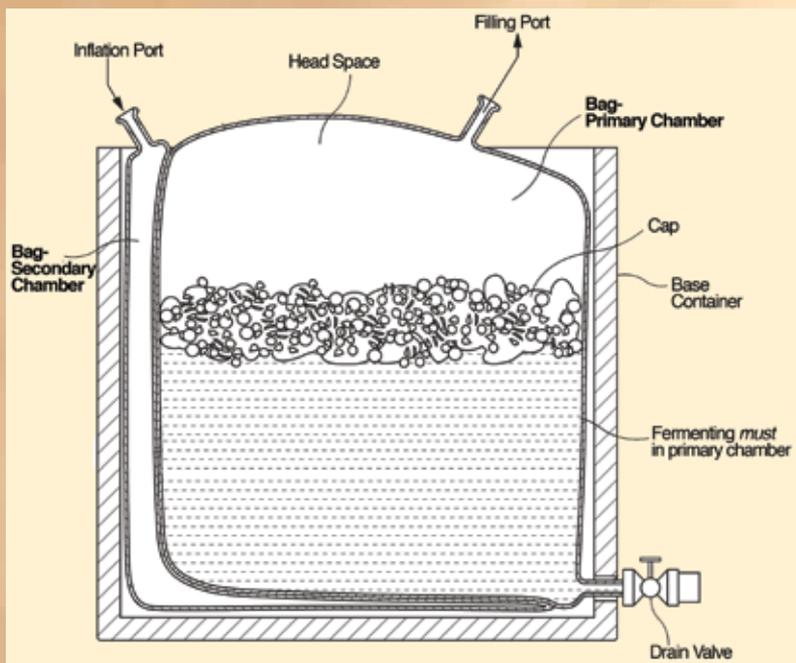
- Creates a sealed environment which minimizes potential contamination, Giving the winemaker better control over the final quality of the product.
- Water usage costs are vastly reduced (80% on average), and your winery will become a more environmentally responsible facility. No washing, no detergents, no scrubbing. No wastewater treatment needed.
- The system employs an internal automatic punch-down device which ensures the cap remains moist without exposing the *must* to air.
- Since the *GOfermentor* requires no washing or rinsing, its usage results in a significant reduction in labor cost.
- No installation necessary. Can be deployed in 10 minutes. Fold and put away at the end of the season.



## How Does the GOfermentor Work?

The *GOfermentor* consists of two basic components: The GObase and the single-use GOLiner.

The GObase: Reusable, rigid outer container which holds the GOLiner in position. The GObase can be moved by pallet jack or forklift. It is also DOT certified for truck shipment. Since the wine does not contact the GObase, it can be reused between batches by simply wiping down the surfaces. The GObase also folds down for storage when not in use. A control panel with electrical components and valves attaches to the GObase for automatic control of punch-down, temperature, and other functions.



## *Red Wine & Punch Down*

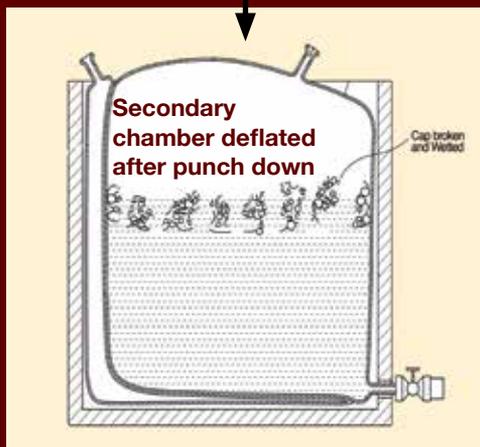
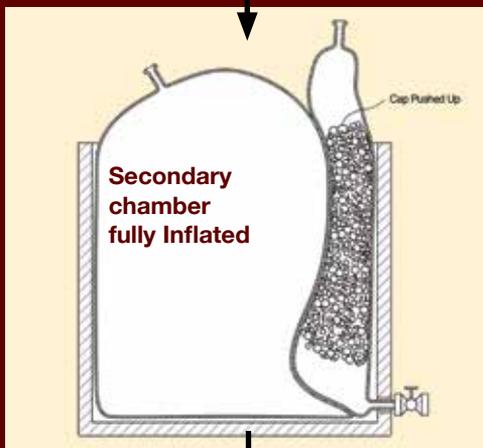
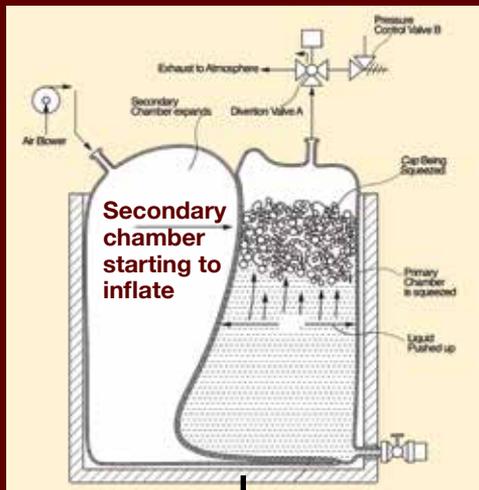
The *GOfermentor* works with nature. Instead of forcing the cap down, the liquid below the cap is pushed up. This is done by inflating the secondary chamber of the *GOfermentor* GOliner. This expanding chamber presses against the fermenting *must* in the primary chamber. The action pushes the liquid in the primary chamber up through the cap and then squeezes the cap itself, reducing its cross-section so that it breaks up. This is a very gentle process, emulating the punching of the cap with the feet.

Once the cap is squeezed, the pressure is released in the secondary chamber and chunks of cap drop back onto the liquid surface. The liquid that was squeezed through, has now thoroughly wetted the cap. As the secondary chamber deflates, the broken up cap fragments go back into the liquid layer below. The primary chamber then slowly resumes its original conformation.

Instead of the usual “punch down”, the *GOfermentor* does a “punch up”!

This unique concept is possible by the use of flexible *GOfermentor* GOliner technology - the secret to how the *GOfermentor* can extract so much color and flavor, without a hard press.





# Automation & Temperature Control

The *GOfermentor* can be manually activated to perform a punch, or it can be set on an automated schedule determined by the winemaker. A color touchscreen provides an easy interface to set all the parameters. The advanced instrumentation can be configured to log data, events and alarms. A built-in ethernet interface enables this data to be transmitted to remote computers or mobile devices. You can even configure the *GOfermentor* to send you a text message if the temperature of the fermentation is too high!



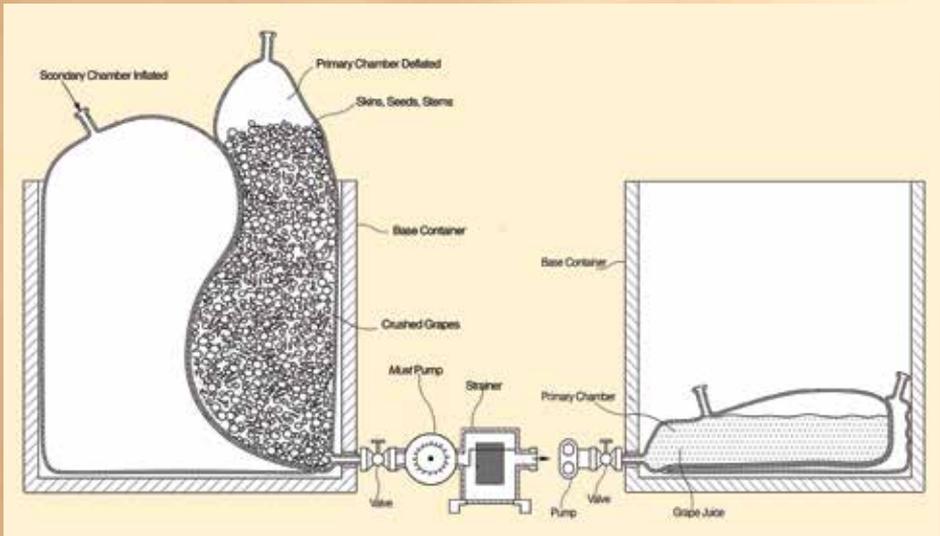
A sampling tube allows samples to be withdrawn at any time during the fermentation without any open operations. The sampling assembly also has a temperature sensor that provides the temperature at the center of the fermenting *must*.

An optional stainless steel heat exchanger plate can be placed under the GOliner and then connected to a chilled water or glycol supply. The heat exchanger has a valve that will automatically maintain the desired temperature during the fermentation. This is essential for white wine fermentation.

# White Wine Production

With white wine, the skins, seeds etc. are removed and the grape juice used for the fermentation. There is no need for cap management, but the punch mechanism can be used to perform the first pressing. This operation eliminates the need for a press, and is a convenient way of performing what is typically a very messy operation. The function is gentle and minimizes crushing of seeds and stems. It also minimizes oxidation of the juice.

When the *must* is ready for pressing, a *must pump* and strainer are connected to The *GOfermentor* GOLiner's bottom fitting. The outlet of the strainer is connected to a new GOLiner in a second *GOfermentor*. The must pump is turned on to pump the grape juice from the first *GOfermentor* to the second. The secondary chamber in the first *GOfermentor* is pressurized and depressurized periodically to press help out the juice. Then just ferment the grape juice in the second *GOfermentor*. Clean and concise.

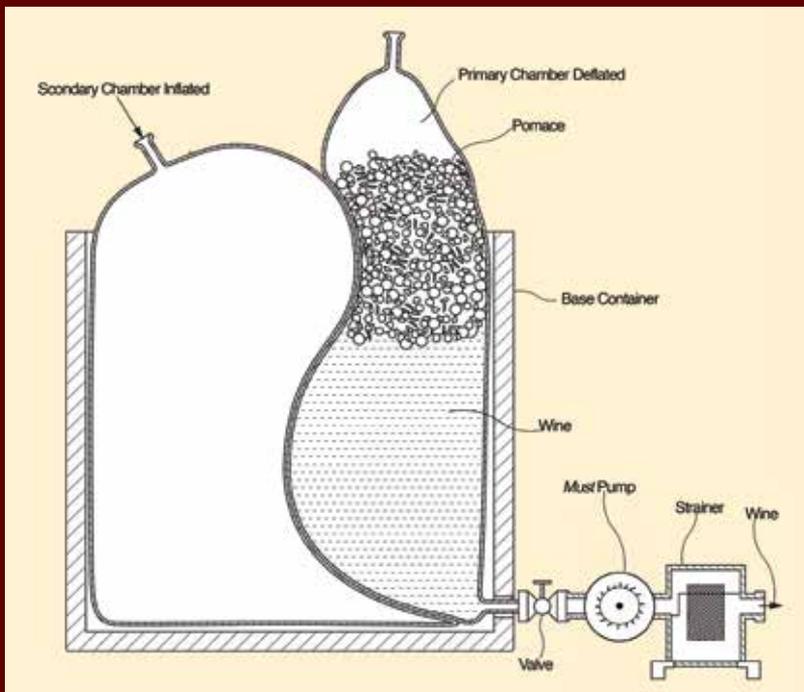


## Optional Integral Press

After fermentation, wine can be pressed using a conventional press. If a press is not available then the secondary inflation chamber (used in punch-down) can be used as a built-in bladder press. Harvest and pressing in conjunction with a *must* pump takes less than an hour.

A large amount of free run wine can be collected before any significant accumulation in the strainer. The strainer basket can be emptied. No air is introduced into the wine in this entire pressing operation thereby preserving freshness. After pressing, the must pump and strainer assembly is disconnected. The GOliner is capped and lifted out of the GObase. It can then be taken to the vineyard and slit open to disperse the pomace back as fertilizer. The empty GOliner, can simply be folded up and discarded.

The *GOfermentor* GOliner is biodegradable in keeping with our commitment to the environmentally responsible winery.



## *Comments from Wineries*

We worked with 13 wineries to test the *GOfermentor* in 2015. The results suggest that the *GOfermentor* extracts more flavor than the regular process, making fruitier better quality wine. The *GOfermentor* gives winemaker more control over the environment in which the wine is made. Here are some of the comments from the winemakers, more can be found on our website.

*“Biggest advantage was cap management, just turn in on in morning and let it do it's thing all day. Sampling port was great, the water usage was great. In terms of labor we really did not pay much attention to the *GOfermentor*. I can't really think of one disadvantage. The results were good.”*

Richard Sowalsky, Head Winemaker,  
Mark Koehn, Production Manager  
CLOS PEGASE, Napa Valley, CA

*“The wine tasted good it was a little more intense. I have made Cabernet franc from that vineyard before, I would have to say that it was a little more intense, the automatic punch is the biggest advantage.”*

Bruce Regalia, Head Winemaker  
MATERRA, Napa Valley, CA

*“The biggest advantage is that it is so comfortable to program the system, you don't have to be there for the punching. Great labor savings.”*

Nacho León, Winemaker  
DEMENCIA, Bierzo Spain

*“It's a unique and innovative way of making good, to very good quality wine. Flavor wise the *GOfermentor* was probably fruitier, brighter fruit flavors. So far the quality of the wine is good.”*

Mark Wysling, Winemaker  
PAREJAS CELLARS, Yakima Valley, WA

# *Research Study VITEC, Priorat Spain*

Three different grape varieties were compared in a side by side study in the GOfermentor and in a standard fermentor. Excerpts from their report.

**Installation:** *The setting up of GOfermentor was rapid and easy. The first time, the whole installation process took 40 minutes. Once the GOcooler and GOfermentor parts were assembled, only took 10 minutes to get ready the system for every new wine.*

**Fermentation:** *This is the stage in which the GOfermentor stands beyond the traditional systems. All the operations needed for a proper fermentation are carried out by the equipment without human intervention, allowing saving personal costs.*

**Pressing:** *There were obtained a yield around 65 % of wine for every must studied. To obtain this kind of yield without using a press is interesting in order to avoid cleaning the press system, which needs a lot of water.*

## ***Aroma profile and mouthfeel:***

**Cabernet Sauvignon:** *GOfermentor wine obtained higher ratings for almost every attribute evaluated, except for both Petroleum and vegetative descriptors. GOfermentor wine obtained a better overall rating.*

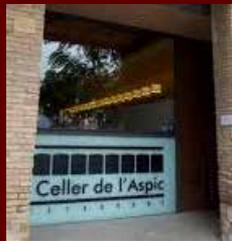
**Grenache noir:** *GOfermentor wine showed a fresher profile, with more red and citric fruits, balsamic and floral aroma. The microvinificated wine had a heavier profile with candied fruits, greeny aroma and spicy. In terms of mouthfeel, GOfermentor wine was less bitter and unctuous, but it burned the mouth more than the microvinificated wine. GOfermentor wine obtained a better overall rating.*

**Tempranillo:** *The GOfermentor wine showed a more typical Tempranillo profile, with higher rating in red fruits and lactic aroma, while the microvinificated wine was spicier and present a little bit reduction. In this case, there was no difference between the overall ratings obtained by the two wines.*

# Comparative Tasting



Wine makers in the Priorat were invited to evaluate the wines made in the *GOfermentor*, at the Vitec Wine Research Institute, compared with those made in the traditional fermentor. Results showed that *GOfermentor* wines had better color extraction, smoother mouth, less astringency, and more red fruit in all three varietals studied. The lack of air in the fermentation process had no reductive effects on the wine.



# *GO fermentor makes award winning wine*



*Artisan Award*

2014 Petite Syrah wins Gold

*San Francisco Chronicle Contest*

2014 Petite Syrah wins Bronze

2014 Labels Series wins Gold

*Finger Lakes International  
Wine Competition*

2014 Petite Syrah wins Silver

2014 Black River Red wins Silver



Sky Acres Winery was invited by the the Clos Figueras Winery, to serve the 2014 Petite Syrah at the Falset Wine Festival, Spain April 2016.



## *About Us*

The *GOfermentor* was developed by Dr. Vijay Singh. A world-recognized biotech scientist with hundreds of published papers. Among his 20 or so patents is his highly acclaimed Wave Bioreactor, developed in the late 1990s. This revolutionized the production of biopharmaceuticals by using a disposable cultivation bag on a rocking platform. The disposable bag replaced the expensive, hard to clean, hard to sterilize, stainless-steel tanks then used universally. Vaccines, antibodies, cytokines, proteins, are all commercially manufactured in the Wave Bioreactor. The Wave Bioreactor now owned and marketed by General Electric Healthcare.

The *GOfermentor* is the result of four years of development by Dr. Singh to develop better winemaking technology. Extensive trials and product development were performed at his own Sky Acres Winery in New Jersey. This winery exclusively uses the *GOfermentor*, and tests here were crucial in developing simple, yet reliable operating procedures.

Meera Singh is a sommelier and does all the blending of the wines at Sky Acres Winery, making award winning wines. Our wines made in the *GOfermentor* have won several awards. The *GOfermentor* was featured in the November 15th 2015 issue of Wine Spectator. Buy our wines on line at [www.skyacreswinery.com](http://www.skyacreswinery.com)



Meera & Vijay Singh

# Specifications



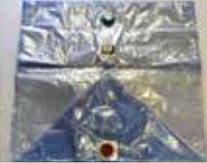
## **GOfermentor**

Control unit with integral inflation fan. Touchscreen interface and ethernet connectivity. Includes all required hoses and adaptors. Includes one sampler. **REQUIRES** GObase outer container (**NOT INCLUDED**) and GOLiners (**NOT INCLUDED**).



## **GObase**

Caliber 315 outer container with bottom discharge port. Made of durable plastic and folds for storage. GOLiner is designed to form-fit into GObase and harvest fitting on GOLiner locks into GObase discharge port. Can also be rented directly for \$1/day (minimum 30 days).



## **GOLiner (Pack of 3)**

Pack of 3 single-use GOLiner fermentation bags with integral inflation chamber. Maximal volume 1200 liters (320 gallon).

## **OPTIONAL**

### **GOcooler**

Stainless-steel heat exchanger plate designed to be placed under GOLiner for temperature control. Includes electric ON/OFF control valve with cable for connection to the GOfermentor controller for automatic temperature regulation.



### **GOstrainer**

Basket strainer with 2 inch stainless steel basket and 2 inch Tri-clamp fittings. Used for pressing directly from GOLiner. **REQUIRES** reversible, flexible impeller *must* pump (**NOT INCLUDED**).



For purchase and rental prices see website [www.GOfermentor.com](http://www.GOfermentor.com)

# *What you Need*

The *GOfermentor* is designed to be portable and there is essentially no installation other than placing the unit in position and connecting to a standard electrical receptacle.

## **WHAT YOU NEED TO PROVIDE**

- Space 48x48inches by 60inches height. Doorway width 46 inches.
- Pallet jack or truck to move 225 lb (89Kg) GObase unit.
- Standard household-type electric service 110 VAC 10amp. Standard plug.
- *Must* pump or similar device to fill and drain GOliner through 2 inch TriClamp ports.

## **WHAT YOU NEED TO ORDER**

*GOfermentor* control unit.

GObase container

GOliner single-use dual chamber fermentation liners. Need one per run.

## **OPTIONAL**

- GOcooler: Heat exchanger plate for temperature control.  
Requires chilled water or glycol supply
- GOstrainer: To best utilize the pressing capabilities of the *GOfermentor*.  
Requires reversible flexible impeller *must* pump.

*GOfermentor*<sup>®</sup>  
*Wine Making System*

*www.GOfermentor.com*

*877 377 5359*

*Sales: sales@GOfermentor.com*

*Technical: vsingh@GOfermentor.com*

Made in USA. U.S. patent 9,260,682  
International Patents Pending