auric infinity Technology

Slavonian Oak Products

auric

Conventional barrel winemaking and aging

1. Standard wooden barrels consist of:

a. Wooden staves
b. Hoops with rivets
c. Wooden barrel heads
d. Bung out of wood, silicone or glass

2. Every time someone buys a standard wooden barrel it comes with 3 standard problems because of the poor barrel construction and the bung which doesn't give any control over

a. Oxidation
b. Contamination
c. Evaporation

3. Even if you push the bung in with a twist turn thinking/hoping that the wooden barrel is sealed you still have to open the barrel now and then for:

a. Taking out laboratory samples
b. Taking out tasting samples
c. For topping up the barrels and for adding any required additives and preservatives

4. Even if you buy French oak, American oak or any other type of oak thinking/hoping that because of the different types of wood grain, you will achieve the wanted micro-oxygenation it's not true at all because every time you remove the bung for taking out laboratory or tasting samples as well as for topping up you will have MACRO-OXYGENATION. The traditional silicone bung is a major problem as well as the construction of the barrel itself.

5. Even if the wooden barrel is left closed for a longer period of time without removing the bung there is still:
a) Oxidation and b) Evaporation because of the '' NOT GOOD ENOUGH'' wooden barrel construction which will allow the oxygen (oxygen transfer rate OTR) to enter the barrel through the gaps between the staves and through the bung hole sealing area and also the product to evaporate out of the barrel because of:

a. Wood-on-wood friction at different temperatures and humidity of the cellar throughout the year
b. Hoops with rivets that don't allow applying the same force on the hoops put on different parts of the barrel
c. Bung movement because of the positive or negative pressure created inside the barrel during aging because of different temperatures and humidity of the cellar

6. All these 3 problems can be only PARTLY controlled by:

a. Added additives and preservatives (SO2) to control oxidation (health impact)
b. Reverse Osmosis (RO) to partly remove contamination (which is an additional cost)
c. Temperature and humidity control of the cellar to control evaporation (which is an additional cost)
d. Topping up the barrels to control oxidation but can also create an opportunity for contamination

7. All these 3 problems can only be PARTLY controlled which means:

a. Oxidation = SO2 health disadvantage
b. Contamination = money loss
c. Evaporation = money loss

auric infinity Technology
isobaric winemaking and aging in wood

1. auric infinity is not an improved standard barrel or a new type of wooden barrel. It is a totally new sustainable technology that allows making wines with nothing other than grapes and yeast

2. auric infinity Technology = custom wooden barrel + sustainable stainless steel bung

3. auric infinity Technology elements:

a. Wooden staves with food-grade silicone rods between the staves and food-grade silicone straps around the acrylic and wooden barrel heads

b. At least one-barrel head out of acrylic

c. Adjustable hoops with bolts. 8 hoops instead of 6 hoops for standard 225l barrels.

d. Stainless steel bung (fixed in place / removable only for cleaning purposes) that seals the custom wooden barrel while maintaining control over oxidation, contamination and evaporation during anaerobic and/or aerobic maceration, fermentation, malolactic fermentation and aging under safe continuous positive and/or negative pressure.

4. auric infinity Technology solves all 3 major problems Oxidation, Contamination and Evaporation:

a. Food-grade silicone rods and silicone straps reduce the wood-on-wood friction and transform the custom wooden barrel into a sealed confined space when pressure is applied on the liquid.

b. Acrylic barrel head allows viewing the product inside and the sunlight to be present during fermentation which has a natural positive impact on yeast strength (please read the 2021 Geisenheim University report)

c. Adjustable hoops with bolts allow applying the same force on each hoop despite their position on the wooden barrel

d. Stainless steel bung allows winemaking with NOTHING OTHER THAN GRAPES AND YEAST under safe continuous pressure inside the custom wooden barrel and taking out laboratory and tasting samples without any oxidation, contamination and evaporation. The bung is removed for cleaning purposes only. Positive pressure can be obtained from CO_2 during fermentation or artificially using any food-grade gasses allowed. Negative pressure can be obtained using any vacuum system.

5. auric infinity benefits:

a. Sustainable Winemaking and Aging with NOTHING OTHER THAN GRAPES AND YEAST

b. Accelerated winemaking and aging

c. Any type of fermentable product can be used:

1. Berries	2. Juice	3. Whole bunch

d. Healthy, as well as partly infected fermentable products (grape berries), can be used

e. Indigenous or commercial yeast and bacteria can be used

f. Total control over oxidation contamination and evaporation during winemaking and aging

g. No temperature and humidity control of the cellar is required

h. Taking out laboratory and tasting samples without oxidation, contamination and evaporation

i. Partly full barrels can be aged without topping.

j. Clean empty barrels can be pressurized with N_2 or CO_2 and stored without any other added additives

k. Clean empty barrels can be pressurized with Oxygen before filling and fermentation

l. Anaerobic cold stabilization, filtration and bottling can guarantee the long shelf life

auric infinity Technology during conventional winemaking

auric infinity Technology can also be used during conventional winemaking (with added additives and preservatives) to have control over oxidation, contamination and evaporation with fewer added additives and preservatives and to reduce labour costs.

1. Depending on the winery set-up (cellar space, humidity and temperature control) the cost for barrel winemaking and aging as well as maintaining the empty barrels is between 150 EUR to 300 EUR per barrel per year. This will include:

a. Inspecting and testing new barrels
b. Cleaning and/or sanitizing the old barrels (steam, hot water, ozone, ultrasound)
c. Filling the barrels for fermentation/aging
d. Malolactic fermentation
e. Racking after fermentation and SO2 addition
f. Laboratory and tasting sample checks (high risk of oxidation, contamination and evaporation)
g. Barrel topping and SO2 addition every 1-3 months
h. Empty barrel dry storage SO2 every 4-6 weeks / wet storage SO2 solution every 6-8 weeks
i. Stacking and unstacking full and empty barrels

2. Apart from having full control over oxidation, contamination and evaporation by using auric infinity Technology the cellar doesn't require any temperature and humidity control and the labor cost can be lowered to under 150 EUR per barrel / per year

a. Laboratory and tasting samples are taken without oxidation, contamination or evaporation
b. Doesn't require barrel topping or SO2 adjustment
c. Empty barrels can be stored under N2 or CO2 gas (one-time filling)
d. Reduced stacking and unstacking

CONCLUSION

auric infinity Technology is the future for both conventional and nothing other than grapes and yeast winemaking and aging

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