

# Top tips: Barrel-to-bottle hygiene

## Tanks

THERE are various steps that make up the winemaking process. From harvesting to vintage to storage, there is a sequence and technique to producing a good bottle of wine. Every winery will differ slightly in its process to achieve their required end result.

However, what every winery does have in common is the necessary step of wine barrel cleaning. Each winery can differ in its barrel or tank cleaning methods, yet the way this cleaning is carried out can have a “domino effect” and impact on other areas of the winemaking process.

The significance of wine barrel cleaning to the rest of the winemaking process is largely due to the barrel or tank playing an important role in taste, bacteria safeguarding, fermentation and storage. These are all crucial elements to the winemaking process.

Whatever vessel a winery may use, whether it's an oak barrel or tank, there are key ways wineries can ensure barrel to the bottle hygiene during key winemaking phases.

## DEEP RE-HYDRATION OF THE BARREL

Traditional processes of re-hydrating wine barrels usually consists of using large amounts of water to flush, rinse and clean. However, that process, particularly if chemicals are used, leads to other concerns for wineries such as environmental damage and water wastage.

Using large amounts of water may wet the surface of the oak, but it will not allow for a full re-hydration which requires getting deep within the pores of the wood. This deep hydration is what is needed for barrel to the bottle hygiene.

Oak like any other wood is very porous. This allows the oak to essentially act like a ‘sponge’, soaking in left over wine and dirty water.

When old wine is trapped within the pores of the oak, this can be mixed with a new batch of wine, which can alter the balance the winemaker intended for the flavour. For example, the old wine could add too much acidity to the new batch, leaving it with the possibility of tasting too sour or sharp. It is the opening up the pores which allows for old wine to be released and tartrate crystals to be melted.

Therefore, in order to properly re-hydrate and deep clean a barrel, a property such as high temperature steam vapour of at least +180 degrees Celsius is needed to open up the pores of the

oak. This allows for the conditioning properties of steam to seep into the pores and sanitise the barrel from the inside out.

## SAFEGUARDING STORAGE AND FERMENTATION PROCESS

For many wineries, the ageing and fermentation process are two of some of the most important phases in winemaking. During this time, the taste of the wine is developed and decisions about what vessel to store wine in are made depending on the intentions of the winemaker.

Although a tank isn't porous, like an oak barrel, tanks can also place your wine at risk for bacteria and spoilage. *Brettanomyces*, or brett, is a slow growing yeast.

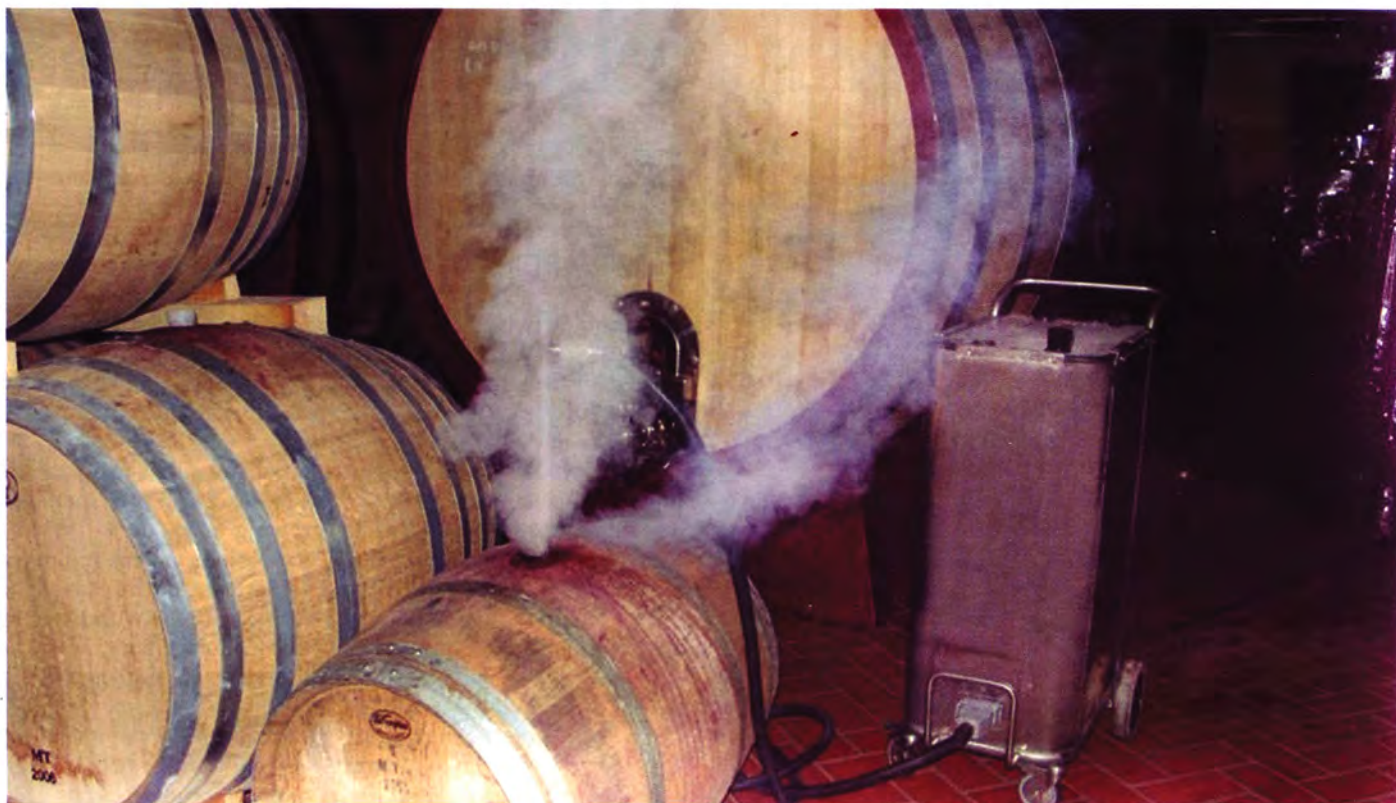
When we are ageing wines for long periods of time in tanks, the risk of brett increases. The risk of brett may not be caused by the by product of the oak, unlike what can occur with barrels, but bacteria can still cling to the walls of storage tank.

## SANTISING WINEMAKING EQUIPMENT

One of the most common ways that brett is spread to cellars is through contaminated equipment. Whilst brett can form in barrels, brett can spread through unsanitised equipment.

Winemaking equipment, including crushers and bottling equipment are at risk of harbouring brett and contaminating new batches of wine.

Due to the ‘domino effect’ unsanitised equipment creates, it makes it one of the main reasons why brett is hard to



**STEAM CLEAN:** A high-temperature steam, used during the cleaning process, can kill all bacteria.

eradicate. For example, by disinfecting your barrels, you are safeguarding the wine from developing brett, but by sanitising your equipment, you are ensuring that any brett contamination that may have been overlooked with a previous batch, doesn't continue to contaminate a new batch.

Sanitising wine equipment can be achieved through using the same steam vapour that can be used for oak barrels. When looking for the right steam generator, the best value for money is to ensure that it can clean not just barrels, but also clean vats, tanks, bottling lines and equipment.

One of high temperature steam's key benefits when used as a cleaning process is its ability to kill all bacteria.

At +180 degrees and above it kills brettaomyces and any other volatiles in seconds.

To ensure better bang for your buck, when investing in barrel hygiene, ensure the wine barrel cleaning method chosen has the ability to provide a deep re-hydration and the ability to sanitise all winery equipment, not just barrels and tanks.

This is how to achieve a complete barrel to the bottle hygiene.

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