Key Ways to Pro-Long the Life of your Wine Barrel

By Murray McDonald, Director - Wine Barrel Cleaning

Wine Barrels are one the biggest investments a winery can make. Many wineries consider that aiming to pro-long the life of their barrels is one of their top business priorities, as lengthening the life of a barrel can save a winery thousands of dollars per year.

With barrels costing approximately $1200 per barrel, enabling your wine barrel to prolong its life from the average 3 - 4 years by 25 per cent, not only saves dollars but provides a wine maker peace of mind that their wine will continue to age and be of the highest quality.

When a wine barrel is used past its general usage period, the wine barrel will lose its oak flavouring and therefore the wine will no longer age and or enhance in flavour. However, generally, by the time a wine grower realises that their wine has been impacted by the quality of a barrel it is too late to try and reverse the issue.

Grapes, harvesting practices, vintage and other wine making processes are all important to the quality of wine. However, a poor wine barrel can unfortunately un-do a lot of the wine making process' hard work. The oak used in wine barrels is very porous and accumulates tartrates, residues and other bacteria that lowers the quality of wine.

The following points are key ways to help pro-long the life of your wine barrel. The ability to "safe guard" your barrel from potential impurities and wine growing bacteria such as brettanomyces, will save your winery dollars and its reputation.

Re hydrating the timber

Many wine makers understand the importance of re hydrating a wine barrel to keep it in peak condition. The traditional process of re hydrating usually occurs during the cleaning process when large amounts of water is used to flush, rinse and clean out wine barrels, with or without chemicals.

However, this process, particularly if chemicals are used, leads to another concern for wineries, the management of waste water. Overuse of water is an environmental issue on its own and the overuse or incorrect use of chemicals can strip the wine barrel of its moisture rather than seal it in.

Continuous steam flow, combined with a direct connection for water supply for pressure washing, is an ideal method for both re hydrating wine barrels as it uses both steam and water. The amount of water used in this method is considerably less than solely using a water pressure process due to steam being the key sanitising and cleaning component, rather than having a reliance on just hot water.

The vapour property of dry steam not only re hydrates but releases tartrates and old wine that have been absorbed inside the wood.
Creating a natural vacuum

The ability to capture and trap steam vapour within a wine barrel is a key way to ensure that a barrel is being hydrated and not being used past its "use by date". When steam is diffused through the top of the wine barrel, this creates a natural vacuum process, as outside air is sucked in through the sides of the timber, whilst the air being inserted from the top is creating a pressure differential.

This "natural vacuum" allows for the steam to be dispersed throughout the entire barrel, not just the top or bottom, and ensures the barrel is getting a deep sanitisation and detertration.

Whilst the bung is inserted into the hole of the wine barrel and allowing for the steam to be trapped inside the barrel to do its deep clean, this process can also acts as a quick "leak test" to determine if the barrel has any holes or openings.

Opening of the Pores

The vapour property of dry steam allows for the pores of the wood to be opened, releasing not only tartrates but also old wine that has been absorbed inside the wood.

One of high temperatures steam's key benefits is its ability to kill all bacteria. When high temperature steam pressure gets deep inside the pores at +100 degrees and above it kills brettaomycies and any other volatiles, and therefore preserves the life of the wine barrel. Although hot water may be useful for flushing out toxins, it has the potential to miss parts of a barrel; it does not kill all bacteria and does not penetrate deep with the wood of the barrel. Steam allows instant transfer of heat allowing for extremely quick disinfection, including in areas where water can not reach.

Murray McDonald is Director of Wine Barrel Cleaning and specialises in dry steam machines that clean, sanitise, detertrate and re-hydrate wine barrels. Through its division “Duplex”, Wine Barrel Cleaning has over 25 years experience in the distribution of dry steam machines. With the manufacturer of Wine Barrel Cleaning's machines being a third generation wine grower, strong wine producing knowledge has been incorporated into the design and operation of its steam machines. Visit www.winebarrelcleaning.com.au

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