

The Art of Barrel Making



Cooperage, the art of barrel making, is an ancient skill. With the advances in every facet of culture, it is surprising to learn the actual barrel making process has changed very little over time. To achieve the highest standards of quality, the time intensive is still performed by the hands of a skilled cooper.

The tradition of using wine barrels to store and age wine is centuries old. French Oak is considered best for barrels used in wine making as it tends to impart the subtlest influences on the overall flavor components of the finished wine. The wood preparation and barrel construction also make a difference to the quality and taste of wine as well as the intensity of toasting on the inside of each barrel.

A wine barrel is made up of staves which have been shaped into a bulging cylinder, and flat heads or ends. The staves are held in place by metal hoops, usually galvanized on wine barrels or steel on whiskey barrels. The shape is designed so the barrel can easily be rolled. The curve or *Bilge* allows the barrel to be spun easily to control direction. Most barrels weigh between 125 to 140 lbs. when empty. Six to eight hoops encircle the barrel spaced along the length. Wineries can specify the placement of the end hoops for placement on their storage racks.

The average wine barrel has a useful life expectancy of about five years. After that time, the barrel begins to impart heavier flavorings of oak into the wine. Barrels can be restored, by shaving away several layers from the inside of the staves and re-charring the wood, or adding inner stay oak slates. This can extend the life of a barrel up to ten years, however the results are not the same as with new wood.

Actual dimensions vary from barrel to barrel - a result of their being hand crafted. The most common types of oak barrel are the *Bordeaux* Barrel and the *Burgundy* Barrel. The differences include size and capacity. Barrel Heads for the Bordeaux style barrel are approximately 21.5" in diameter, whereas the barrel head of a Burgundy barrel is approximately 23". Other oak barrels include the Whiskey Barrel and the Hogshead Barrel.

French Oak was once (and still is by many) considered the most desirable wood for making wine barrels. Most French Oak comes from one or more of the forests planted in the days of Napoleon for ship building. Five of those forests are primarily used for wine barrel making. *Allier*, *Limousin*, *Nevers*, *Trancais* and *Vosges* forests produce woods with distinctive characteristics and winemakers select their barrels based on the desired effect for the finished wine.

Early experiments with American Oak were not successful as the oak had too much influence on the content of the barrels. At first, the problem was believed to be with the wood itself. Later it was discovered that the difficulties were caused by the way the wood was prepared and the barrel constructed. American Oak barrels have improved dramatically and usage is definitely on the rise, as is also the case with Hungarian Oak.