



On the morning of June 18, 2026 we had the wonderful opportunity to tour Demptos Napa Cooperage. Led by Coby Jamieson, Director of Sales, and her colleague Brad Bogel we learned about the fascinating process of coopering a barrel from start to finish.

Tonnellerie Demptos was founded in 1825 in Saint-Caprais-de-Bordeaux, France. Recognizing the potential of the California wine industry, in 1982 Demptos Napa Cooperage was established in Napa. This made Demptos one of the first French cooperages to set up roots abroad, addressing a very practical problem: shipping finished barrels was not economical – they were paying to send over a lot of empty space. Having a facility locally meant they could ship stave wood – flat pieces of wood already matured and milled, ready to be assembled into barrels here.



Today, Coby estimates Demptos can offer up to 1,000 different combinations of options within a single barrel. Choices can include origin (French, American Hungarian, forest selection), tight vs medium grain, toast level (light, medium, medium plus, heavy) and be made in various capacities (30 gal, 60 gal, 500 L, etc.)



We learned why French oak is more expensive than American. While partly driven by transport costs, the milling process is different. French oak grain is tighter and must be manually, and carefully, split along the grain to ensure it remains liquid-tight. This process is labor-intensive and produces more wood waste, adding costs. Because American oak grows faster and has a wider grain structure, it contains natural compounds that plug the pores, which allows for mills to use machines and standard sawing techniques.



And now the moment we'd all been waiting for. As we entered the toasting room, in a split second we were enveloped in a complete sensory experience. In one area, coopers fit individual wooden staves together. No glue or nails are involved, only the of pounding temporary steel hoops to form the barrel shape.



At the next station, partial barrels are put over the warming fires, followed by the bending fires, and with the expertise of the skilled coopers and a winching system developed by Dempstos, the barrels take full shape. The process takes only a few minutes but yields a consistent bend and prevents cracking of the staves.



A machine fits temporary “truss” hoops around each barrel.



The toasting process caramelizes the wood sugars and, depending on the level of toast, brings out different aromatics and flavors. In general, American oak imparts sweeter, vanilla aromas while French oak is spicier.



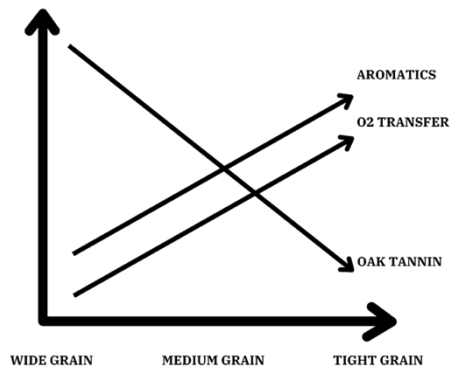
Cutting the bung hole requires a specialized machine that ensures the wood fibers are compressed rather than broken. The cut is then immediately cauterized with a hot iron to char and smooth the interior grain of the bung hole to make a hermetic seal with the bung.



While it may seem counterintuitive, according to Coby fine or tight grained wood is the most porous.



“Tight grain (slow growth) contributes less tannins with more porous wood. The porous wood allows greater oxygen transfer and higher aromatics. Wide grain (fast growth) contains more summerwood and contributes more tannins with fewer pores. Faster oak extraction.” Coby helpfully provided this handy graph showing the interaction of oak tannin, aromatics and oxygen transfer.



The toasting room in full swing was incredible to witness as we were surrounded by the heady aromas of toasted vanilla and spice, the rhythmic pounding of the hoops and tumbling of the barrels as the coopers moved around the noisy, smoky room in seeming chaos but in fact it was precision choreography the result of decades of meticulous dedication to this craft. But we had to move on.



We leave the toasting room, ready to fit the head of the barrel. These joined pieces are ready to be cut into rounds, and the scrap is used for the toasting fires. Nothing is wasted in the coopering process. Even the wood dust is captured and sold to a company to make liquid smoke.



A machine makes cuts in the barrel called the chime (a beveled rim) and the croze (a channel below the chime) to fit the barrel heads. Hoops are loosened and tightened by skilled hands to ensure a precise fit.



The barrel is then fitted with permanent hoops, sanded, tested for leaks and lasered with the Demptos and customer's logos.



And finally, the finished barrels are wrapped and stored, ready to be filled!



Thank you to Coby and Brad for a fantastic, educational and memorable experience.

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