

## Australian Innovations in Oak

Oak barrels were first generally used for wine around the second century AD. Today oak is a major expense and a potential quality headache for premium producers all over the world. Australia is reported to be the third largest market in the world for new oak barrels, but with French oak barrels costing up to 1200 AUD (740 Euros) including shipping, this is a significant cost. One source estimates that less than 5% of the Australian crop goes into barrel and only about half of that would be new. In comparison, under 2% of French wine is estimated to go into barrel.

With a barrel only having a useful life of two to four years, a number of alternatives have been developed. Nick Haselgrove, chief wine maker at Haselgrove in McLaren Vale is proud of his 54 Stakvats. These stainless steel cubes hold 900 litres of wine (equivalent to 4 barrels) and are a wholly owned Australian invention. They are fitted cooling coils and with oak slats, and are closed with an oak side panel which allows gentle air permeation. The concept was born in 1988, but it took until 1995 to develop a commercially viable vessel, according to Rob Parker at manufacturers Ausvat. The units are compact, stackable, easy to clean and robust enough to move by forklift. Each Stakvat costs from 3800 AUD (US oak side, no battens). Battens cost 360 AUD for American oak and 480 AUD for French oak, while replacement sides are 725 AUD for American wood and 1025 AUD for French. The manufacturers admit that they struggled to get quality oak to start with, as cooperages saw the units as competitors to barrels. They also had to overcome the problem of toasting flat surfaces, compared with the traditional "bucket firing" of barrels and have designed their own electrical infra-red toaster.

Ausvat recommend replacing the oak sides after 2 years but suggest cutting them into battens, toasting and reusing inside the Stakvat, which gives significant economies. Haselgrove has also found a major saving in operating costs, including reducing evaporation losses and labour. He calculates 20% of the cost of the equivalent volume of wine in barriques, giving an overall payback in just 2.5 years. Haselgrove is now using Stakvats commercially after 5 years of trials. Internal quality classification tastings show quality in the early stages "is almost the same as new oak barrels, in some cases better" and he is continuing to monitor development over time. He is currently using the units to give volume efficiencies for commercial wines.

Ausvat claim 46 users across Australia with 320 vats in total. At present, they are the only producer, along with NDA Engineering in New Zealand manufacturing under licence. So far, the technology has only been exported to South Africa, but companies in Germany, Russia, China and USA have shown an interest. With pressure on oak prices and availability, it seems certain that this technology and other similar ideas will be here to stay.

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Originally published Wineworldtrade.co m August 2001