

Dry steam cleans barrels with less water and time

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Barrel racks & handling

STICKS WINERY IN the Yarra Valley last month played host to a demonstration of the latest dry steam systems used for cleaning wine barrels.

Duplex imported the latest models to Australia from Italy in January and demonstrated the top performing systems on 20 February.

Unlike traditional water pressure cleaning methods which often require large amounts of water and chemicals, the Duplex machines operate at 94% dry steam.

“Traditional methods involve cold water and high water pressures, whereas these units use dry superheated steam at 6% moisture. Therefore these machines use a lot less water and are able to build the temperature up in the barrel a lot quicker,” explains Nick Gibbs, sales manager for Duplex.

“The more power means more steam which means a shorter cleaning time. The main use for these machines is wine barrel and wine bottling line cleaning.”

The machines demonstrated were:

- Bacchus steam pressure machine – used for facility cleaning, production cleaning equipment, disinfecting, cleaning small components and

tubes, and cleaning and disinfecting bottle lines

- Bacchus industrial – a three-phase steam generator with a stainless steel chassis and body, watertight IPX5, automatic refilling system with electromechanical water level control inside the boiler – True Temp, direct connection for water supply, low voltage control panel. Used for barrel cleaning
- Bacchus single phase – a mono-phase or three-phase steam generator with an automatic refilling system with electromechanical water level control inside the boiler – True Temp, stainless steel chassis and body watertight IPX5. Digital device with: thermometer, pressure gauge, hour meter, automatic switching on/off. Used for barrel cleaning.

All machines work the same: a diffuser goes into the wine barrel and builds up steam pressure, which hydrates and sanitises the wine barrel; according to Gibbs, the temperature inside the barrel after cleaning can reach up to 130-150°C.

The single-phase unit takes about 10 minutes per barrel to clean, while a three-phase unit takes about five minutes per barrel.

Gibbs says wineries of all sizes could benefit from the Bacchus steam machines.



The Bacchus dynamic is a mono-phase or three-phase steam generator with an automatic refilling system. It was among the machines demonstrated at Sticks Winery in the Yarra Valley last month.

“If they’re only operating with 50 barrels and are in little rush to get them clean then a single-phase unit would be fine,” he said.



Duplex director Murray McDonald providing a wine barrel cleaning demonstration in the Yarra Valley of the Bacchus steam pressure machine.



The Bacchus steam pressure machine's diffuser inserted into a wine barrel.

“That said, it also depends on the power wineries have available. At the end of the day it's up to winery for what they could justify financially and how quickly they need results.”

Sticks Winery was among the first wineries in Australia to purchase a Bacchus wine barrel dry steam cleaning machine from Duplex.

The winery has an annual winemaking capacity of about 3000 tonnes and fills about 1500 barrels each vintage.

Senior winemaker Travis Bush said he chose the Bacchus static 14.4kW three-

phase steam generator because of its high-pressure ability.

“This machine also diffuses the steam via a diffuser spear that goes into the barrel and has holes drilled at different levels, whereas other machines have a barrel spear-type system which delivers steam to the bottom of the barrel, thereby intensifying the steam in one spot,” he said.

“We're also looking to control any sort of bacterial or microbial issues that we may see and to try to prolong the life of the barrel. If we can get two more years out of each barrel then the unit would

have more than have paid for itself.”

Gibbs says there has been significant interest from other winemakers, particularly in South Australia, where he hopes to exhibit the machines later this year.

“We've been pleasantly surprised by the interest, particularly from McLaren Vale and the Barossa,” he said.

The single-phase units are about \$5000 plus GST, while the three-phase start at about \$7000 plus GST.

For more information, visit: www.winebarrelcleaning.com.au **GW**