

# V.A. ADJUSTMENT



## OVERVIEW

With the continued production of higher alcohol wines comes out-of-control Volatile Acidity (VA)—a problem affecting winemakers worldwide. Stuck fermentation, spoilage during fermentation and increased VA during aging have all been known culprits of VA increase.

## PROCESS

At a guaranteed minimum VA removal per pass of 30%, VA adjustment membranes are used to separate small molecules, like acetic acid, into the permeate stream. The permeate stream is then treated separately, removing the VA without damaging pigmented retentate, which is responsible for wines' complex characteristics. Other filtration systems can adjust VA levels—but our equipment can also guarantee no pH shift. Operating at low pressure also ensures a gentle process.\*

## EQUIPMENT

Winetech's system consists of a combination of loose reverse osmosis membranes and ion-exchange columns. Winetech's membranes and ion columns exchange pH stability, resulting in no pH shift in your wine.

**QUALITY CONTROL:** Pre and post-treatment lab analysis and pH monitoring during processing.

*\*VA Adjustment is not filtration. We remove VA, not the microorganism itself. Wine needs to be sterile filtered to remove the cause of the problem.*



<b>EQUIPMENT</b>	<ul style="list-style-type: none"> <li>•Winetech Loose R.O. System with Ion Exchange Resins</li> <li>•Membranes: FDA approved, thin-film tangential membrane</li> <li>•Resins: FDA approved, odorless and flavorless</li> </ul>
<b>APPLICATIONS</b>	<ul style="list-style-type: none"> <li>•Removal of volatile acidity from wine without affecting the pH</li> </ul>
<b>COMPLIANCE</b>	<ul style="list-style-type: none"> <li>•All components, materials and chemicals are FDA approved</li> <li>•TTB complaint</li> </ul>
<b>PROCESS</b>	<ul style="list-style-type: none"> <li>•No pH shift (<math>\pm 0.1</math>)</li> <li>•Throughput: 250 - 800 gallons / hour</li> <li>•Wine temperature: 55°- 65° F (13°-18° C)</li> <li>•Max working pressure: 740 PSI (50 bar)</li> <li>•Average wine loss: 0.5% - 3% (small lots)</li> <li>•VA removal rate: 30% minimum guaranteed per passage (only if wine pH &lt; 4)</li> <li>•Cleaning agent: sodium / potassium hydroxide / hydrochloric acid</li> <li>•All equipment is sanitized after each use</li> </ul>
<b>SERVICE REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>•<b>Analyses: VA levels no older than one week.</b></li> <li>•<b>Power:</b> Dedicated receptacle within 100 feet <ul style="list-style-type: none"> <li>•220 Volts tri-phase 60 Amp</li> <li>•480 Volts tri-phase 30 Amp</li> </ul> </li> <li>•<b>Receptacle:</b> Hubbell style three poles + ground 30A 480V / 60A 480V / 60A 240V NO HARD WIRING will be done by our Filter Technicians. We can sell the receptacle to be installed by your contractor. We will not perform the service without the necessary receptacle in place</li> <li>•<b>Water:</b> Within 70 feet with 3/4" garden hose fitting</li> <li>•<b>Tanks:</b> Wine tank within 70' with Tri Clover fitting (above ground level)</li> <li>•<b>Hoses:</b> 1 1/2" or 2", sanitized, enough to reach the tank</li> </ul>
<b>WINE REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>•<b>Wine:</b> Racked, blended, in tank.</li> <li>•<b>Lot size:</b> Minimum 500 gallons</li> <li>•<b>Wine temperature:</b> Minimum 55° - 65° F (13° - 18°C)</li> <li>•<b>Brix:</b> Max 10°</li> <li>•<b>Note:</b> No CO2, clarifying products, bentonite, seeds or pomace</li> <li>•<b>Turbidity:</b> Less than 200 NTU</li> </ul> <p><b>CAUTION:</b> Maintain free SO2 level between 20 - 30 mg/l before and after treatment</p> <p>VA ADJUSTMENT IS NOT A FILTRATION: You need to filter the wine to remove the microorganisms responsible for VA</p> <p><b>Should these requirements not be met at the time of service, Winetech reserves the right to reschedule, revise pricing and/or cancel the service</b></p>