



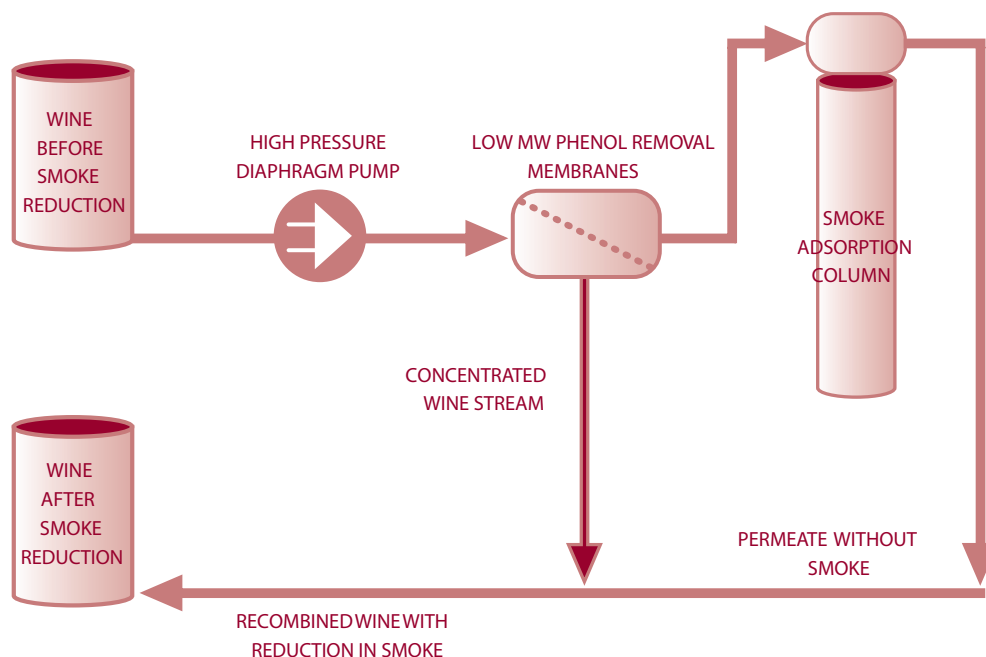
Smoke taint is made up of an insidious group of compounds that infiltrate the skin of the grape during prolonged exposure to smoke from a wildfire.

It is believed that these compounds are bound to the glycosides within the grape skin at the time of harvest. Typically, the juice shows little or no sign of the underlying smoke taint after crushing, but as fermentation kicks in and the sugars are broken down, these compounds are released and manifest themselves in the form of smoked bacon, ash tray, camp fire and other smoke related aromatics. There is also significant impact on taste in the form of a retro-nasal ash tray finish on the back pallet. Red wines are more at risk than white wines due to the prolonged skin contact that red wines see during fermentation.

There are several methods of reducing smoke taint levels, with the most effective currently being membrane processing, but with hit and miss results, especially on taste. VA Filtrations method of smoke taint reduction has reduced the hit and miss factor dramatically by targeting aroma and taste. Our process includes nanofiltration/ adsorptions followed by DETOX - a proprietary media based full flow system designed for eliminating the ashy back-pallet character. The process has been found to be extremely effective at reducing smoke taint levels from as high as 220 ug/l of Guaiacol.

Note that guaiacol levels are merely a marker for smoke taint. If the wine has not had any toasted oak contact, the guaiacol level is a great indicator as to the extent of the taint. Once this number is known, then treatment can commence. So far, the best results for evaluating smoke taint reduction have found to be sensory and time based. Process the wine to a point, let it settle, re-evaluate and if necessary process again. All this can be carried out on a small scale by making use of the Sweetspotter. Once evaluations have been completed, then it is up to the larger machinery to work its magic. VA Filtration has equipment capable of processing at rates of up to 1000 gal/hr (3800 l/hr). With state of the art machinery and a knowledgeable staff, let us work wonders with your wine.

# MOBILE SMOKE TAINT REDUCTION\*



## ADVANTAGES OF THE SMOKE REDUCTION PROCESS

- 500–1,000 gal/hour
- No internal recirculation
- Minimal heat increase
- Lower treatment pressure
- On-site continuous supervision

## ON-SITE TECHNICAL INFORMATION

System Flow Rate:	500–1,000 gal/hr
Preferred process:	Recirculation or Tank to Tank
Power required:	208/240V (30 amp), 480V (20 amp) or 380V (30 amp)
Water required:	Running water at 30 psi (minimum)
Nitrogen required:	Single cylinder
Min.. wine inlet temperature:	50°F minimum. 50 - 60°F preferred
Max residual sugar (RS) level:	3% (if higher, please call us)
Min... recommended lot size:	300 gallons (Use 'Sweetspotter' for smaller volumes)
Glycol cooling:	Not required
Clarity required for processing:	Racked twice, minimum