

SUPERTANK

SUBMERGED CAP FERMENTATION TANK FOR DELESTAGE: 10 HL TO 300 HL

In their 1971 Treatise on Enology, J. Riberau-Gayon and E. Peynaud cite some of the observations made by L. Ferrè, M. Vitagliano and M. Bonev in the 1950s regarding the vinification of red grapes in an “open tank with submerged cap”.

The above serves to demonstrate that the technique of keeping the cap (or marc) submerged in the juice during fermentation is a technique that has been used for many years now and which continues to attract followers above all because of the simplicity and the labour cost savings it offers. Albrigi Technologie has made the technique their own and improved on it.

Some grape varieties, the so-called “tender grapes”, suffer when they undergo the mechanical actions applied to the grape-solids during pumping-over and punching-under processes, resulting in abnormal grape-solid production. The presence of the grape-solids leads to an increase in production costs, slows the static clarification processes and they tend to absorb, because made of solid matter, significant amounts of anthocyanins.

Albrigi Technologie, after the success of its experiments, offer SUPERTANK, a submerged cap fermentation tank equipped with devices and innovations especially designed to meet the needs of modern winemaking and biodynamic trends as the racking and return of the juice onto the cap takes place in an entirely natural manner.

SUPERTANK has been designed with a system of stainless steel screens and a perforated central tube for draining the must, all completely and quickly removable.

The screens force the marc, a cap which forms during fermentation, to remain completely and constantly submerged in the fermenting must and thus prevents it from becoming compact and rising to the top. The updraft of carbon dioxide, which forms during fermentation, rises through the perforated central tube (an ALBRIGI PATENT) provoking a slow and continuous leaching of the grape-solids. The utility of this fermenting tank is further enhanced by the presence of rack and return (Délestage) devices which make it ideal for making wine from tender grape varieties.

The délestage technique is, because it is a non-aggressive method which protects the fragility of this type of grape, highly recommended when making wine from these grapes. Not only, but by using the délestage technique, one prevents the forced formation of a static cap and thus prevents its layering and consolidation which could create preferential routes, which would limit the extraction, thus making it more dynamic and incisive, while fully respecting the integrity of the cap. Furthermore, during the dynamic phase of délestage, macro-oxygenation can take place thanks to the macro/micro-oxygenation stations (optional) which can be connected to the tank via the centrally located perforated tube.

The role of the perforated central tube is to drain the must, which is sucked in through the valve under it. This operation becomes necessary when the SUPERTANK is used for cold pre-fermentative maceration, or if one desires to heat the product itself; or to perform over-pumping-homogenization or macro-oxygenation with external pumps, to avoid délestage.

Normal fermentation temperature can be easily controlled by the outer jackets.

Macro-oxygenation, during the fermentation phase, ensures the renewal and vitality of the fermenting yeast cells, a process which can continue for many days and gives the wine a high alcohol content.

Micro-oxygenation during the final fermentation phases, on the other hand, ensures the stability of the pigmentation substances.

The aim of this technique can be summarized in the words of Prof. Moutounet:

“It is commonly known that phenolic compounds are mainly responsible for the consumption of the wine’s oxygen. After the effect of the oxygen, they undergo various chemical transformations. A key compound in the evolution of the pigmentation of red wines is acetaldehyde, which has its origins in the oxidation of ethanol which, acting as a bridge in the condensation reactions between anthocyanins and tannins, leads to the formation of highly coloured and stable compounds.

Another fundamental benefit of the technique of micro-oxygenation is the disappearance of plant traces and an increase of reductive power thanks to phases of structuring and harmonization which lead to an increase in aromatic complexity.”

Supertank



Perforated central tube for draining (Albrigi patented)

