

MECCANOTANK

When red grapes are macerated to make red wine, the liquid must interact with the grape solids for a more or less prolonged period of time. This interaction time can vary from less than a day for rosé wines, to a few weeks for fine quality wines with good structure that are destined for aging, to a few months in the case of dessert wines made from withered grapes. In the latter case, when the desired time has been reached, the problem of extracting the solid parts once the wine has been racked and the tank has been emptied arises. In times past, this operation was done by hand using pitchforks, shovels, augurs and conveyor belts, etc...

As a result of the amount of labour, the high risk of accidents and the need to reduce production costs, several manufacturers have designed systems to mechanize this process.

Albrigi srl, the winemaking world's most reliable partner, has met this need by designing and manufacturing the MECCANOTANK system.

This fermentation tank is equipped with a system of motorized blades which quickly, but above all safely, extract the fermented skins through an opening located either at the side or at the bottom of the tank. MECCANOTANK can be combined with a series of transport mechanisms such as: augurs, belts, lifts, pumps, etc...

These additions create a highly efficient vinification unit that is specialized, orderly, simple and inexpensive.

In order to satisfy a wide range of needs, the MECCANOTANK series includes vinification units of various sizes and with differing characteristics:

- the medium-capacity vinification units have a flat bottom that allow you to eliminate the skins through the front or bottom of the unit
- the large-capacity vinification units have a cone-shaped bottom with a side opening at the bottom
- all of the units stand on 4 stainless steel legs.

The extraction mechanism is made of stainless steel and has anti-friction wheels (flat bottom).

Special attention has been given to the design of the blade and the problem of the formation of "bridges" at the base of the cap, which is a real obstacle if you consider that this renders extraction mechanisms entirely useless.

(The blade has been designed to hold the weight of the cap of skins remaining after withered grapes have been vinified.)

The motor unit is specially designed to be disassembled even with a full tank.

If desired, the rectangular draining hole can be equipped with a manual, mechanical or hydraulic opener.

If the client so desires, MECCANOTANK can also be equipped with all the devices which make this fundamental phase of must processing easier:

- external jackets for temperature control which can warm or chill the grapes according to need
- external hoses connected to the appropriate self-rotating spray arms and which allow you to make technically sound replacements in the traditional way
- the automation of central pumping-over cycles, while controlling fermentation temperature
- an internal turbine to manage automatic pumping-over operations
- cap punching rods for "délestage"

This particular two-step rack and return method further perfects vinification strategies so that the resulting product meets the needs of the marketplace. The method, which was initially popular only among French winemakers, has now also been adopted by Italian colleagues thanks to Prof. Delteil of the ICV of Montpellier.

The technique, which is now widely used in many wineries because of its simplicity and for the quality of the resulting wine, is characterized by its delicate treatment of the fragile grape skins, for the technique in and of itself,

but also for the number of times it is applied during the fermentation phase; generally only once a day and sometimes not even every day. It is, therefore, also ideal for the vinification of especially tender grape varieties. According to Prof. Delteil's method, the fermenting must is racked into a second tank leaving the grape solids to dry at the bottom, where they will undergo compression for a few hours. The must is then returned to the original tank onto the cap of grape solids from above. The compression phase, which allows the must to extract more from the cap and helps expel CO₂ into the air, optimizes the quality of the substances extracted and aids fermentation. But what distinguishes Albrigi srl's professional expertise, innovation and progress is the possibility to equip MECCANOTANK with a micro-macro-oxygenation station which provides:

- macro-oxygenation during fermentation to guarantee the vitality and renewal of the yeast cells, busy fermenting for periods of time which can, in the case of withered grapes, go on for many days and with the development of high alcohol content.
- micro-oxygenation at the end of the fermentation cycle.

The aim of this technique can be summed up 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 micro-oxygenation is the disappearance of plant traces and an increase of reductive power thanks to stages of structuring and harmonization which lead to an increase in aromatic complexity."

Meccanotank



Fermented skins extraction blades

