



# Chappellet Selects VitiSort® Optical Sorter for MOG Removal

Recognized as a pioneer in the Napa Valley, Chappellet Vineyard & Winery is highly respected for its Cabernet Sauvignon and other ultra-premium wines. This pioneering spirit and dedication to quality led Chappellet to be among the first to install VitiSort®, the optical sorter for wine grapes from Key Technology. The compact, two-stage system combines a patent-pending mechanical MOG (material other than grape) removal shaker and optical sorter with an integral juice recovery system. As the most affordable optical sorting system on the market, VitiSort helps maximize quality while minimizing labor.

“We considered optical sorters from three suppliers. We used one on a trial basis for a short time in 2013 and then used Key’s VitiSort on a trial basis for the 2014 crush before we decided to purchase it,” said Daniel Docher, Assistant Winemaker at Chappellet. “VitiSort is about half the cost of the other two, and it performs beautifully. It’s allowed us to increase our throughput while doing an excellent job removing MOG, compared to double sorting manually.”

Sorting up to 5 tons (4.5 metric tons) of red grapes per hour, VitiSort is ideal for wineries producing 5,000 to 50,000 cases per year. It separates unwanted objects such as insects, skins, raisins, shot berries, stem jacks, petioles, leaves, and other MOG from the good berries, enabling Chappellet to better control the quality of the must going into their fermentation tanks.

“VitiSort allows us to elevate the quality of all of our lots. With it, we can bring a B+ lot up to an A. We can take something that may have just missed the mark, take the MOG out, and decrease the chance that the wine is rustic instead of refined,” said Phillip Titus, Winemaker at Chappellet. “Five years ago, this kind of technology seemed ahead of its time. Now it’s highly desirable. I believe we will all be using this kind of technology as the wine industry modernizes.”



The stainless steel VitiSort is compact and mobile, designed to easily roll into position under the destemmer so fruit automatically flows from one machine to the other.

“We really put VitiSort through its paces last year. We sorted Cabernet Sauvignon, Merlot, Cabernet Franc, Malbec, Pinot Noir, and Zinfandel. Not every varietal is easy to run, but VitiSort worked well for all of them,” noted Docher. “The shaker table is the best I’ve ever seen. It does an amazing job removing small MOG and spreading the fruit for presentation to the optical sorter, which optimizes its performance.”

Designed for easy use, VitiSort features a color touchscreen control panel and graphical user interface where the winemaker can adjust the sort parameters to remove more or less MOG to meet his exact needs. Product settings can be stored in VitiSort’s memory and easily retrieved. “VitiSort allows us to make very subtle changes to the settings to adjust MOG removal,” explained Docher. “This versatility enables the sorter to be tailored to work with any red grapes in any region.”

“Compared to manual sorting, VitiSort is far better at removing MOG, and it’s allowed us to increase our capacity. With it, we typically run three to four tons an hour with only two people – one driving the forklift and the other overseeing everything else,” said Docher. “Without an optical sorter, it would take a dozen people or more to hand-sort at that throughput but they couldn’t match the quality of VitiSort, because there is a limit to what humans can do.”

VitiSort begins with a vibratory conveyor that gently shakes the grapes to perform an initial mechanical separation of MOG, which falls through slots along with juice. MOG is accumulated on a sloped surface for disposal, and juice is automatically recovered for reintroduction to the must. Singulated grapes freefall from the end of the conveyor into the optical sorter, presenting a “sheet” of product that allows a camera to inspect each grape. The sorter quickly analyzes the images, comparing each object to user-defined accept/reject standards. When unwanted objects are identified, the sorter activates the ejector system, which is made up of a series of air jets that span the width of the system. While still air-borne, the air jets pinpoint MOG to remove it from the product stream. Good grapes pass from the sorter into a trough or screw conveyor for delivery to the fermentation tank.



Unlike optical sorters that feature belts to inspect product on a horizontal plane, VitiSort inspects product on a vertical plane, which dramatically simplifies the operation while achieving optimal inspection results. The simplicity of this gravity-fed system creates a smaller footprint while easing sanitation and maintenance with the elimination of the belt and bearings.

“During crush, we typically run 10 hours a day, six days a week. After production, we clean each machine. It takes less than 30 minutes for one person to thoroughly clean VitiSort, which is about half the time it takes to clean other optical sorters,” said Docher. “It’s a very well designed machine with no moving parts so there is virtually no maintenance required.”

“With VitiSort, we can make a decision about how much MOG to remove, and then do it. With it, medium-size wineries have similar high tech optical sorting equipment that had previously been so expensive only the large wineries could afford it,” said Docher. “This is the first optical sorter that actually does what we need it to do. It helps us make the best wines from the best grapes.”

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