



SITRANS WW200 and Milltronics BW500

From grapes to a good wine – high quality has high demands



The winery of Château Gruaud-Larose in the Bordeaux district produces high-quality wines. The estate modernized its weighing applications by incorporating rugged weighfeeders, proving that correct weighing technology plays an important role in product quality.

One of the best-known winegrowing regions can be found in Southwest France, in the Bordeaux district. With about 3,000 wineries which form the so-called Châteaux, this is the largest contiguous wine-producing area in the world. On a acreage of about 120,000 hectares, almost 6 million hectoliters of quality wine are produced annually, 20 percent of which are white wines. This is also where the quality wines

of the Château Gruaud-Larose winery come from.

Bordeaux wines are usually produced from up to five varieties of grape, and the composition can vary depending on the weather conditions throughout the year.

Red wine is mainly obtained from the Cabernet Sauvignon, Merlot and Cabernet Franc varieties. The fertile soil and the mild, equable Atlantic climate provide ideal conditions for winegrowing and regularly produce vintages of extremely high quality. The quality signet AOC (Appellation d'Origine Contrôlée) guarantees the controlled designation of origin.





The company is pleased with reduced downtime during grape harvest due to SITRANS WW200's cantilevered design, which makes belt changes and routine maintenance quick and easy.

The smaller the area to which the appellation refers, the higher the quality, prestige, and price level of the wine. The most famous wines originate from so-called community appellations which refer to only a single community or a few adjacent ones.

Such wines are produced by the winery of Château Gruaud-Larose in the vicinity of Saint-Julien, northwest of Bordeaux. Wine has been produced here on about 80 hectares for almost 300 years, mainly from the grape varieties Cabernet Sauvignon and Merlot.

High quality begins with the harvest

High demands are placed on the equipment used for the harvesting and production sequences associated with wine-making. The most important objective during harvesting, for example, is that the picked grapes are handled gently before the complete yield is barreled down to the cellar.

When unloading the grapes from the trailers onto the incoming materials scale, there was previously a danger that a large share would be squashed and ruined completely, leading to a possible reduction in quality. At the same time, harvested grapes must be weighed according to the plots to enable improved traceability of the yield per grape plot.

Not only does careful handling of the yield directly following harvesting play an important role, but accurate recording of grape weights is also highly significant for the further processing steps.

Optimization of the harvesting process and simultaneous exact weighing – in order to solve these two tasks, the French winery decided to replace the previous incoming



The Milltronics BW500 integrator determines and calculates the throughput quantities. The customer can now view yield details of individual appellations.

materials scale with a modern weighing technology solution from Siemens.

The solution – use of a weighfeeder

The French company P.I.S.O., with headquarters in Leognan, is a specialist for weighing technology with many years of experience, and is also a regional Siemens Partner. With its exceptional knowledge of Gruaud Larose as a company and familiarity with its personal requirements, P.I.S.O was a reliable partner, able to carry out the complete project from system assessment up to the first harvest.

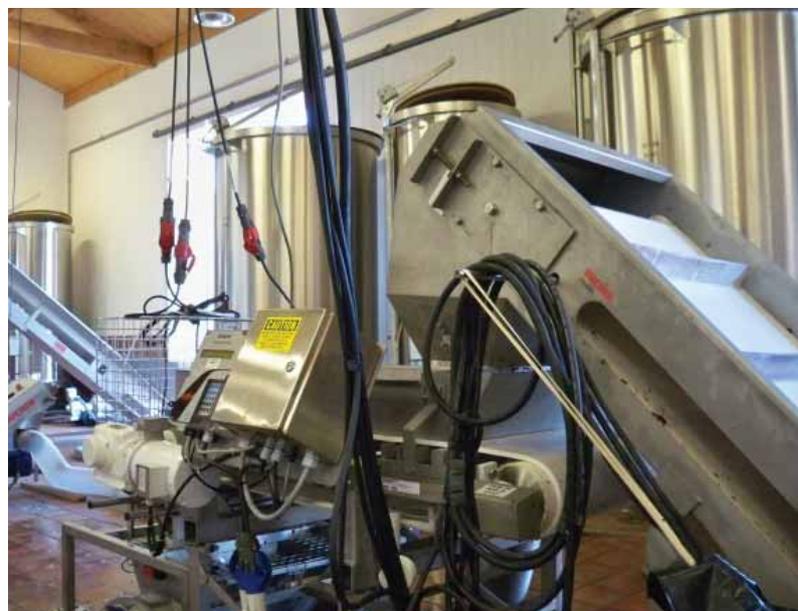
The Siemens SITRANS WW200 weighfeeder was selected as the new weighing system. Individual customizing with regard to belt lengths, belt types, inlet configurations, and drive type is possible with Siemens weighfeeders to suit customer requirements. At the same time the weighing system guarantees high-precision weight measurements and complies with hygiene requirements during operation.

Easy cleaning thanks to hygienic design

Since the grapes still occasionally arrive at the weighfeeders already crushed, regular cleaning of the scales is essential.

The SITRANS WW200 provides a special advantage here: As a result of the flanged edges, liquid cannot drip down from the belt and the substructure does not become sticky. The stainless steel sliding supports which transport the belt are also very easy to clean.

Apart from the drive and guide drums, the SITRANS WW200 has no other rollers or moving parts within the weighfeeder. Therefore the belt can be easily and quickly removed for replacement or cleaning. Since it was specially designed for



The SITRANS WW200's stainless steel sliding members and flanged edges make the weighfeeder very easy to clean.

Benefits

- The design of the weighfeeders ensures simple maintenance, and problem-free replacement if necessary.
- The cantilever construction of the weighfeeders allows belts to be changed without having to dismantle the frame into separate components.
- The construction of the SITRANS WW200 weighfeeder prevents material deposits, thus ensuring highly accurate and reliable measurements.
- The unique weighing system reduces dead loads, and transfers the net load to the two load cells.
- The load cells are mounted externally and are easy to access for servicing.

the food industry, the SITRANS WW200 is also resistant to frequent cleaning with water at high pressure. It complies with both USDA and FDA requirements.

Stability ensures accuracy

The weighing platform of the Siemens weighfeeder with a UHMW PE sliding plate is directly mounted on two corrosion-resistant, hermetically sealed stainless steel load cells. Thanks to this design without mechanical guides, the weight of the material acts directly on the load cells. The result is a maintenance-free weighing system without hysteresis.

In addition, the solid frame of the SITRANS WW200 ensures stable, reproducible measurements, as well as maximum resolution and high accuracy.

Determination of all-important values

An operator terminal was installed directly on each of the two weighfeeders, consisting of a Milltronics BW500 integrator, a Micromaster MM420 frequency converter, and control elements.

Based on the net load and belt speed, the Milltronics BW500 integrator determines and adds up the throughput quantities. This facilitates assignment of specific yields to individual appellations. It is possible to manually set the belt velocity using a controller on the control panel.

From the customer: Modern plant provides good harvest

Mr. Carmagnac, cellarman at the winery, has been won over by Siemens weighing technology: "The new Siemens weighfeeder configured by P.I.S.O. has enabled us to

integrate continuous weighing when receiving the grape harvest. Compared to our previous incoming material scale, we have gained extra space and achieved a significantly higher degree of working comfort, including reduced noise exposure, easier cleaning, and greater plant flexibility."

The plant was used for the first time for the 2011 harvest, and operation was trouble-free; a repeat of this performance is expected for the 2012 harvest. Thanks to the high-quality Siemens weighing technology, the company now awaits this second harvest with confidence.

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