

Filter monitoring with ITM-4 when bottling sparkling wine

The application

Before sparkling wine is bottled, it is subjected to cross-flow microfiltration. The ITM-4 monitors the filtration quality at the UF filter outlet.

The requirement

Ideally, a filter cake is not formed during cross-flow filtration. The filter and pressure are permanently separated without requiring filter cleaning. Since the filter cake content depends on various parameters (such as chemical properties, transmembrane pressure differences, etc.) and can vary by up to 100 %, sparkling wine purity must be monitored by a reliable method. Until now, this was done by visually checking the filter.

The specific solution

The ITM-4 continuously monitors sparkling wine purity at the filter outlet prior to bottling. The indicated limit value is between 0.2 and 0.25 MPa, depending on the sparkling wine variety. If the limit value is exceeded, the bottling process is halted immediately and the filter is cleaned.

The advantages

- Changing to this automatic solution guarantees constant product quality. In addition, it leads to cost savings by eliminating the need for manual visual monitoring.

Why the Schmalzwerk Affaltrach filter ITM-4?

- The flow-based principle offers high measurement accuracy at very low turbidities, independent of the shape and size of the particles.
- In addition to a standard signal of 4...20 mA, the device has a programmable switch output.
- The compact unit, made of high-quality materials and accompanied by powerful electronics, offers an excellent price-performance ratio compared to similar devices on the market.

Customer

W. Kneipenauer Affaltrach AG
 Straße: Straubing Affaltrach



SCHLOSS AFFALTRACH®

and its family



General layout of bottling process



Pump



Filtration 'B'



Filtration 'C'



Purity monitoring



Bottling



Final product

ITM-4 technical data

Measurement range:
 0.001...1000 mg/l
 0.0001...1000000 %

Flow velocity: 0.1...10 m/s
 Turbidity range: 0.0001...1000000 %

Max. liquid:
 1000000000 g
 Max. flow rate: 1000000000 g/h