



Cross-flow filtration for tank bottoms



The Flavy Leestar cross-flow filtration is a good Alternative to the rotary vacuum filters for the following reasons: cost-savings, wine quality, convenience and environmental impact.

Cost savings

- Labour cost reduction. This filter is designed to be autonomous and the filtration process is fully automated and requires minimal supervision. Meanwhile, winery staff can focus on other tasks.
- Highly resistant, long-lasting, tubular, stainless steel membranes.
- Return on investment from 18 months to 3 years with reduced operating costs compared to traditional methods.

Convenience

- Easy to use: a simple, user-friendly, intuitive programming.
- Batch per batch processing (no collating required) to better preserve
 the value of each wine. The operator can process one tank after the
 other, avoiding mixing different products and thus better preserve
 the value of each tank bottom while keeping the traceability of the
 individual batches.
- Compact and robust equipment. The titanium oxide ensures the membrane is highly resistant to abrasion, heat (177°C), pressure (70 bars) and chemical products.
- The wines are bottle ready right after the Leestar filtration.
- The Leestar is design as a modular unit which can be sized to the filtration need.

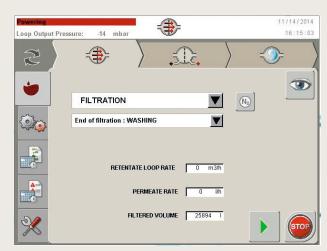
Wine quality

- Optimal rate of filtered product recovery
 (up to 96 % recovery on products containing up to 45 % of volumetric suspended solids content VSS).
- The organoleptic qualities of the original product are preserved.
- No loss of alcohol.
- No oxidation.
- The microbiological stability is guaranteed.
- The filtered wine is perfectly **bright and clear** < 1 NTU.
- No colour fading.
- The filtered wine can be is directly re-incorporated in the initial batch without prior treatment (fining and filtration).

Environmental Impact

- No additive or filter aid.
- Reduction of liquid and solid wastes.
- No health risk for the operators: no earth handling, which usage is under review currently due to the fine particles of crystalline silica which generate « alveolar » dusts which are dangerous for health.
- Filtration retentates can be re-used.





Control panel

Flavy Leestar

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For more than 20 years, Bucher Vaslin has developed new cross-flow filtration processes always focusing on innovation and a high standard of service.

Flavy Leestar was designed as a result of continuous research, backed up by Bucher Unipektin's expertise of more than 20 years in the use of stainless steel, tubular membranes for the filtration of fruit juices.

Flavy Leestar is a cross-flow filter for « tank bottoms », specifically designed for the filtration of heavily loaded, very clogging products such as wine lees coming from fining (bentonite...) or sedimentation, the retentates from cross-flow filters and centrifuge sludges, the total of which represents 3% of the volume of the total wine production volume on average.

100 % of the users recommend this technique of filtration for tank bottoms.



K Flavy Leestar is easy to run as it operates unattended so that the staff can carry out other tasks in the meantime. Work load is substantially reduced as there is no earth to handle. Leestar requires one hour of labour for 20 hours of actual filtration.

Les Producteurs de Rauzan Wine Cooperative (France) 175 000 hl /year.



(Con top of being automatic and resistant, Flavy Leestar has enabled us to remove some wine defects (volatility) and to improve its microbiological stability. **

Santa Rita Cellar (Chile) 650 000 hl /year.



We used to have a filter press but the oxidation was too high and its efficiency on the retentates from cross- flow filtration was too low. With Leestar, the global output is far better and a second filtration process is not necessary.

In addition, we have saved labour hours as the system is fully automated including the cleaning. The time spent in preparing and cleaning the filter press has disappeared. »

Trautwein Cellar (Germany) 600 000 hl /year.

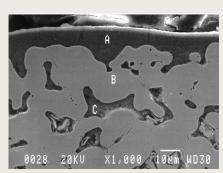


In the Leestar is distinct from the rotary vacuum filter as it can treat small batches, re-incorporate the filtered wine right after the cross-flow filtration and what's more important, there is no need to worry about the treatment of used earth any longer. »

Grands Chais de France (Petersbach-France) More than 3 Mhl /year - One of the first three wine traders in France.



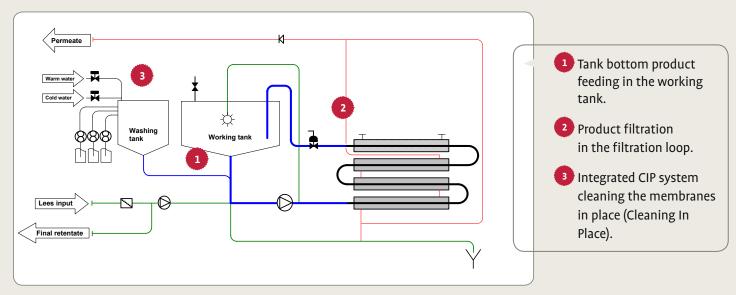




Membrane viewed under the microscope



Operating principle



Technical characteristics

Number of membranes: 3 to 6

Flavy range	Leestar 3	Leestar 4	Leestar 5	Leestar 6
Flow rate (I/h)	160 to 800	210 to 1070	270 to 1330	320 to 1600
Volume per day (hl/day)	30 to 160	40 to 210	50 to 260	60 to 320

With Bucher Vaslin, you choose a high standard of service and peace of mind

Decide for a strong brand with experience spanning over 20 years in cross-flow filtration.

Bucher Vaslin helps you select and implement the solution best adapted to your needs and specificities and guarantees a regular follow-up to optimize your equipment performances.

With Bucher Vaslin you benefit from the support of a dense network of approved technicians and distributors across the world.

Close to you and trained in our technical training centre, our dealership network is made of true professionals and local specialists ready to assist you.

Bucher Vaslin offers specific trainings programs for machine operators and maintenance teams with a commitment to supply fast and reliable availability of spare parts for up to 20 years after the model has been superseded.

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