

Pilot, 360° supervision by Bucher Vaslin



A tailor-made solution for global management

- This supervision system can be used to manage all or part of the winery's equipment, providing a global, personalised response that is perfectly adapted to customers' needs.
- Thanks to this advanced technology, operators have real-time visibility of the state of their equipment, from harvest reception to the winery.
- A team of experts is on hand to help customers optimise their processes. This scalable solution adapts to the growth of the customer's cellar, guaranteeing sustainable performance.

A solution tailored to our customers' needs

Extensive automation of the management of harvest and juice flows at the cellar infeed produces significant time savings. The stages follow one another in complete autonomy, without waiting or forgetting, and at the right time. Tasks with no added value are eliminated, freeing up time available for other essential process tasks.

Pilot supervision reduces the number of cellar staff to a strict minimum, and provides a solution in a social context where the seasonal employment market is tight.

Benefits of Bucher Vaslin Pilot supervision

Peace of mind

An automated workflow reduces the risk of errors. The workload on staff is reduced, allowing them to concentrate on key process tasks.

A single screen provides an overview of the entire production site, reducing the need to travel and ask for help, as information can be accessed directly.

Duplicating of screens at strategic points, such as the winery or offices, contributes to overall peace of mind. In the event of a malfunction, supervision can also be used as a diagnostic aid to improve responsiveness.

Precision and repeatability

The automation developed by Bucher Vaslin and the choice of certified and approved components guarantee very high precision and reproducible processes, unlike manual management, which is often approximate and a source of errors and omissions.

Traceability

Pilot supervision offers traceability of flows via production reports configured and adapted to site requirements.

Safety

Supervision enhances the safety of your process and operators.

All the operating processes and their sequences are continuously monitored.

Automation reduces the likelihood of accidents during what is a period of intense activity.

Ecological benefits

Optimised washing processes significantly reduce water consumption.

Industry 4.0 and transition to 5.0

The Internet of things (IoT) and the digital interconnectivity between different objects make it easier to optimise processes. Flows management with Pilot increases productivity. All the equipment is used optimally to keep energy consumption under control.

Temperature exchanger on the harvest
Automatic cooling or reheating according to the required setpoint.

Inerting piping
Nitrogen injection for inerting and protecting the harvest from oxidation. Allows you to use gas to completely empty the piping.

Tank level management
Checking of the filling levels of the juice reception tanks. Transfer to another tank if full.

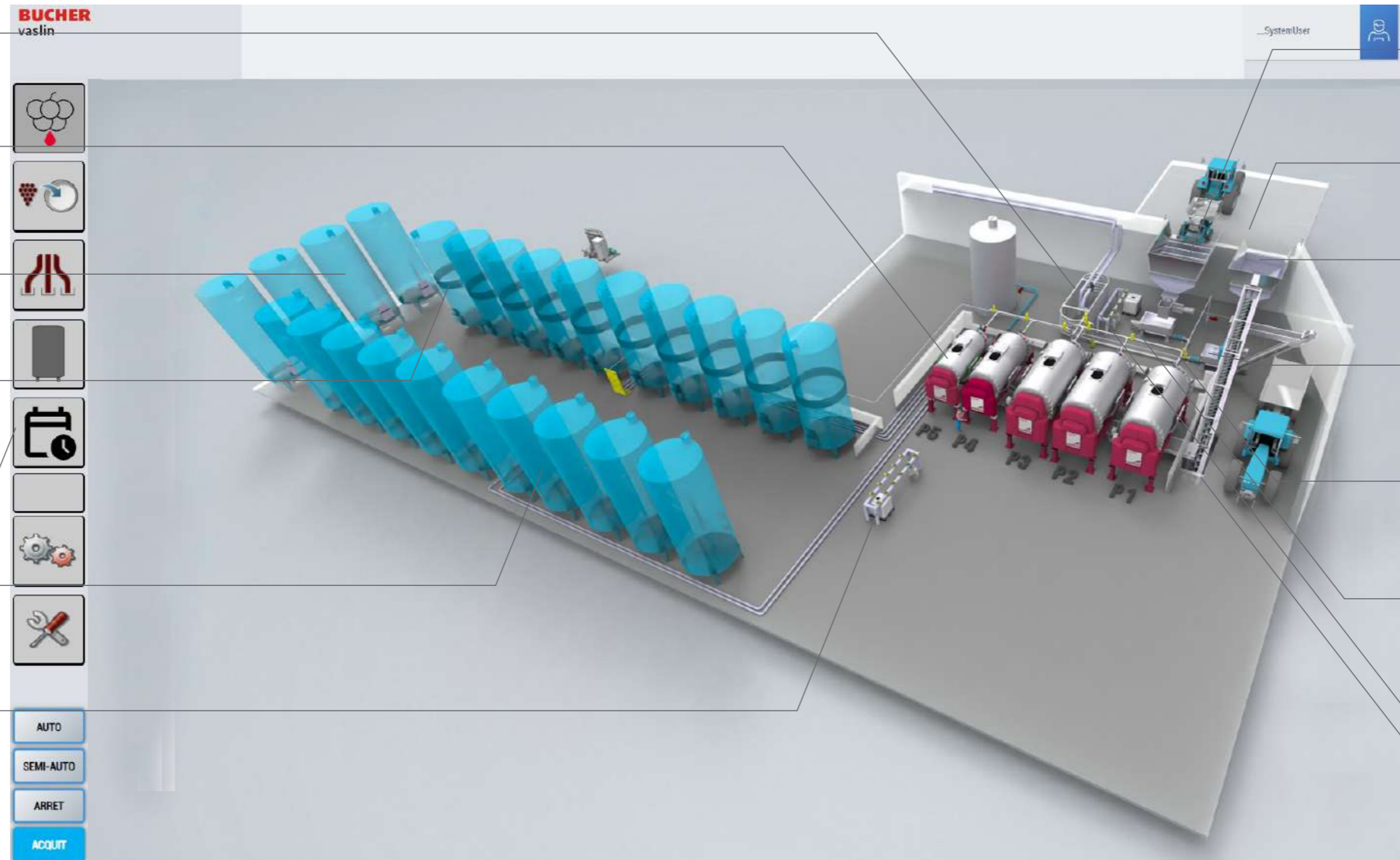
Tank temperature management
Temperature control according to the required setpoint.

Harvest reception schedule
Anticipate intakes and the entire harvest itinerary.

Fining station
Simplification of the work in the cellars thanks to an automatic feeder in the tanks receiving the fining product juices.

In-line injection of oenological products on juice
Automatic dosage of oenological products on juice leaving the presses.

Inputs history
All inputs data (batch, plot, weight, itinerary, dosage of oenological products, etc.) is logged for archiving purposes.



Automatic recognition of input carriers
Each input carrier is fitted with an RFI recognition chip to guarantee the correct order of passage according to the defined reception program.

Loading bay safety
A safety light curtain barrier to ensure operator safety at the reception area.

Conquet hopper weighing management
Management of ticket printing and display of the quantity of grapes in the hopper.

Destemming / crushing management
Control of the harvest itinerary according to the selected program. Transition or not from the destemming and crushing stage.

Pipe rinsing
Automated pipe rinsing facilitates work in the winery and reduces water consumption.

Harvest pumping management
Control of the pump at the hopper outlet to automatically direct the harvest according to the selected program.

In-line injection of oenological products on the harvest
Automatic dosage of oenological products on the harvest and on the juice from the bins.

Evacuation of pomace
The system checks that a bin is present and the level of pomace in it. Evacuation screw auger control.



Input carrier authentication and security at the hopper

Maximum safety at harvest reception thanks to a safety light curtain barrier. Each input carrier is identified by an RFI badge, guaranteeing compliance with the reception schedule and the order in which input carriers arrive.



Heat exchanger temperature control

Complete control of the desired temperature of the harvest by automatic management of the cold supply to the heat exchanger, according to the set temperature.



In-line injection of oenological products into grapes and juice from the bins

Simplification of work in the winery thanks to in-line dosing of oenological products (e.g.: Enzymes, tannins, SO₂, etc.) on the harvest or the juice from the bins. Greater safety through reduced risk of dosing errors.



Selection of presses and in-line injection of oenological products into juices

Pilot supervision is used to direct the harvest to the selected press. Easy control and operation of the press by displaying its screens directly on the main supervision screen. Simplification of work in the winery thanks to in-line dosing of oenological products (e.g.: Enzymes, tannins, SO₂, etc.) on the juice leaving the press. Reduced risk of dosing errors.



Juice selection in the fermentation vats

Reduced consumption of water (for pipe rinses) and nitrogen (for inerting) by moving the selection of juices leaving the press as close as possible to the juice reception tanks.



Fining station

Simplification of the work in the cellars thanks to automatic addition of fining products to the juice-reception tanks (e.g.: Pea protein, activated carbon, PVPP, etc.). Greater safety through reduced risk of dosing errors.



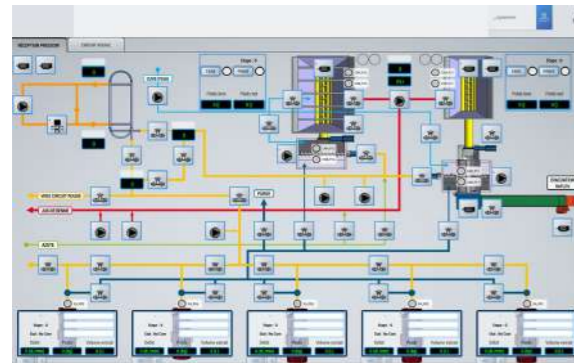
Control of pomace evacuation

Maximum safety for pomace evacuation: anti-clogging control of the evacuation screw for multi-press installations, checking for the presence of a pomace reception bin and of the level reached in the bin, with an alert to move it if necessary.

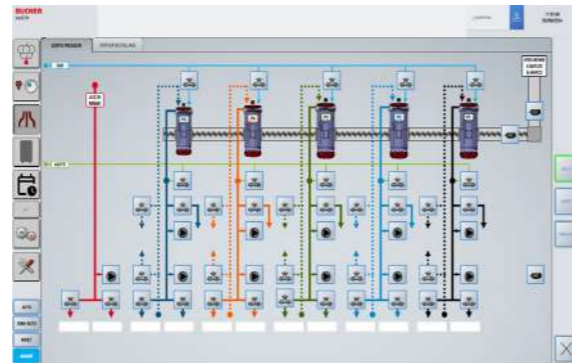


Main screen/remote control consoles

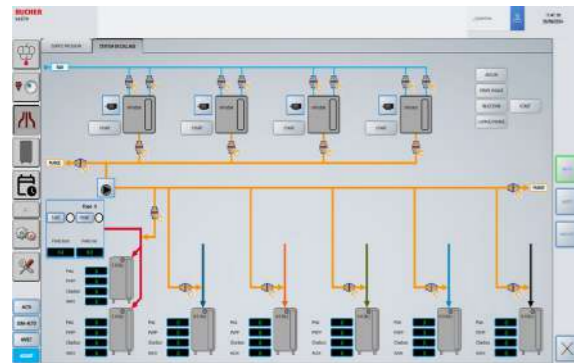
High-level ergonomic comfort and utility thanks to a touch interface and a Windows environment that allows multiple windows to be displayed, zooming in and out, and multiple applications to be opened (e.g. cameras for remote viewing of different workstations). A choice of screen sizes is available, as well as remote control consoles positioned at various strategic points in the winery.



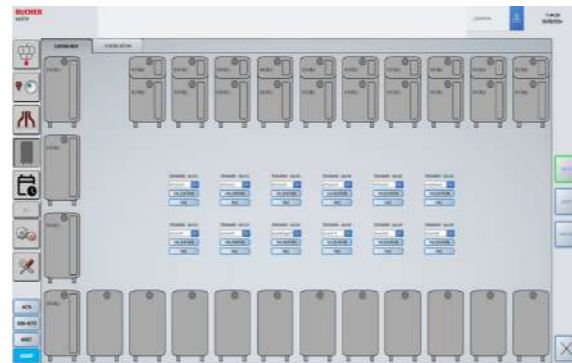
Harvest reception screen



Pressing and juice and pomace outlets screen



Fining station screen



Winery levels and temperature display screen

Optimised cleaning for reduced water consumption

- Automatic rinsing of juice and grape harvest pipes and reception equipment (e.g. hopper).
- Rinsing by spray system or closed-loop recirculation for maximum efficiency with minimum water use.
- Improvement and simplification of this task, which is often carried out at the end of the day.



Bucher Vaslin engineering



Because every project is unique, Bucher Vaslin's engineering department offers you personalised expertise to support you at every stage of your project.

Our experts are on hand from the moment your needs are analysed, to ensure that the specifics of your installation, your work preferences and your constraints are taken into account. They will then propose a solution that is entirely tailored to your needs, and will accompany you every step of the way.

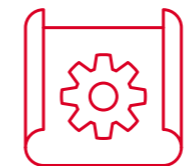


Safety system

- Risk analysis
- Assistance in drawing up the risk prevention plan
- Interaction with the safety coordinator

Product adaptation

- Customisation
- Chassis and process modification
- Automation and supervisory interaction

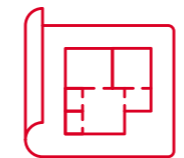


Studies

- Advisor
- Feasibility
- Definition of needs
- Integration of the customer's oenological processes

End-to-end projects

- Complete integration of the system with its environment
- Traffic zones
- Piping
- Structural support elements



Drawing up of plans

- 2D/3D drawings
- Layout schematic
- Interactions with civil engineering work

Implementation monitoring

- Management of the tasks distributed among parties on a worksite
- Deadline monitoring
- Installation documentation

