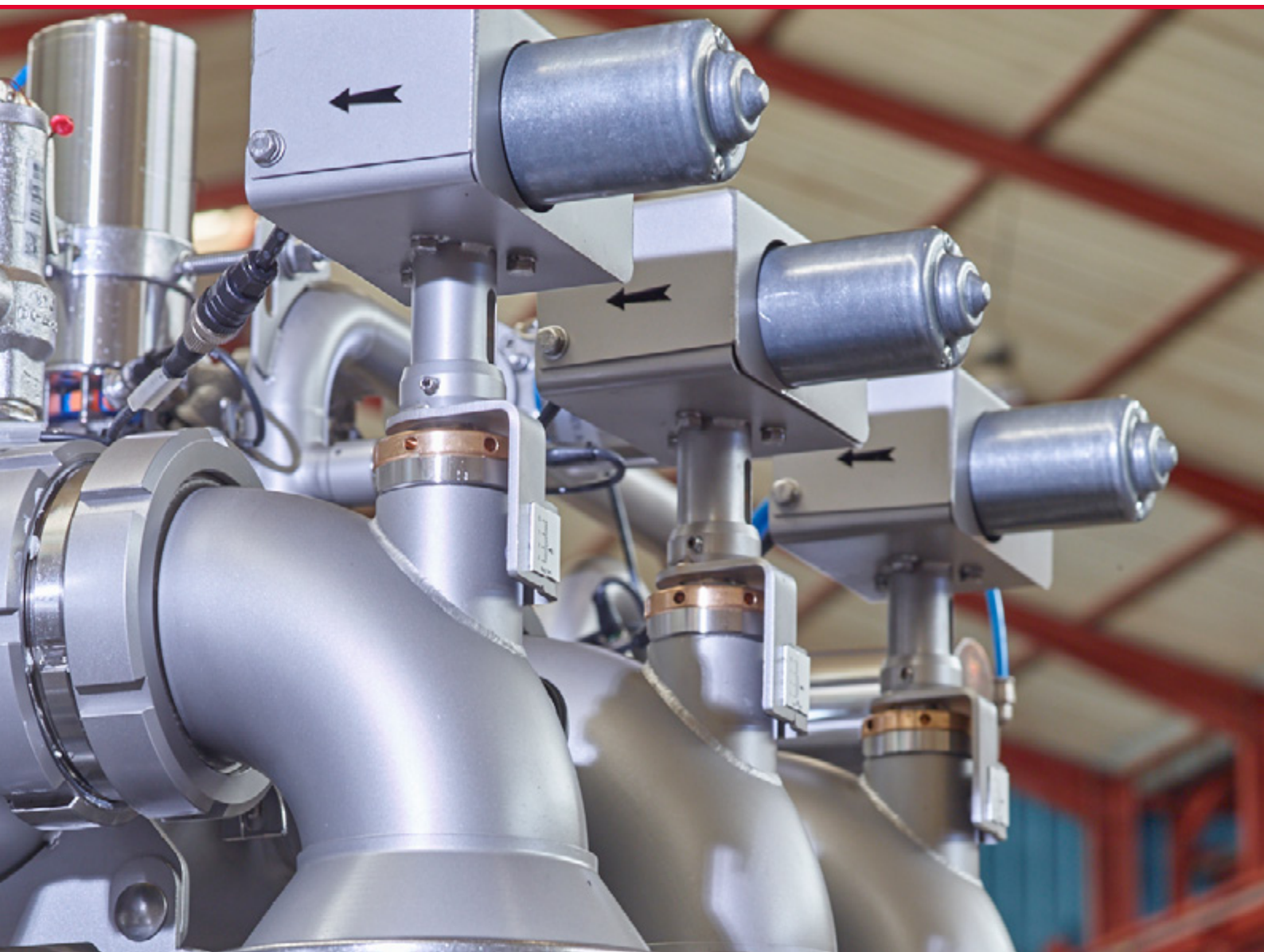


BUCHER
vaslin

Flavy

Bucher Vaslin membrane solutions



The wine production world is undergoing major transformations, and Bucher Vaslin is constantly innovating to meet your new and evolving demands. This approach is in our DNA: to accompany you on the road to high achievement.

For over 30 years, Bucher Vaslin has been a recognized player in the field of filtration and is constantly developing its range of tangential filters to offer new applications.

Today, we continue to rise to meet your expectations and requirements for the filtration of wines, sediments and lees, with the watchwords of respect for the filtered product, optimum productivity and reduced environmental impact.

Use the various sections of this catalogue to discover and learn about the full extent of our Flavy range.

Happy reading!

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Bucher Vaslin

A wine-making tradition that delivers today - Over 160 years of expertise

For almost two centuries, Bucher Vaslin has had a real passion for vines and wine.

From the first presses built by Joseph Vaslin in 1857 and Johann Bucher in 1874, to today's wide range of products, we offer a unique depth of experience to winemakers and oenologists.

A culture of innovation - Research and observation drive the development of new solutions.

Bucher Vaslin has always researched, innovated and developed its products to rise to and meet your requirements.

Attentive to the needs of the wine industry and its constant quest for quality, we consistently strive to improve our products to make them more efficient, easier to use and more profitable for your business.

Bucher Vaslin provides winery solutions adapted to the needs of each and every winemaker because wine is a delicate alliance between the terroir, ancestral know-how, and technical expertise. We are proud to be at your side to help you succeed.

The strength of a major group - A guarantee of continuity

Bucher Vaslin is part of Bucher Industries, a major industrial group with its headquarters in Switzerland near Zurich.

Bucher Industrie is made up of 5 divisions, each a leader in its own field:

- Kuhn Group - agricultural machinery.
- Bucher Municipal - vehicles and equipment for cleaning and clearing operations.
- Bucher Hydraulics - electronic and hydraulic components.
- Bucher Emhart Glass - manufacture and inspection of glass containers.
- Bucher Specials - equipment for wine production with Bucher Vaslin, fruit juice production with Bucher Unipektin and beer filtration with Bucher Denwel.

bucherindustries.com



376 associates
worldwide



Present on 5 continents
and in over 80 countries



507 distributors and
agents worldwide

Over 160 years of history and tradition

1857

Joseph Vaslin registered a patent for a horizontal press with a square wooden cage.

1961

Production of the 10,000th press. First exports to Japan.

1980

With a view to the exports market, the company changed its name to CMMC.

2001

Acquisition of Mercier Sanchez, a company based in Rivesaltes, Southern France. The factory became a remote production site.

1874

Johann Bucher developed the hydraulic press.

1970

Awarded a Certificate of Merit in the category of corrosion resistant products at the Washington Congress of the Society of Plastics Industries.

1983

Production of the 50,000th press.

2006

Vaslin Bucher changed its name to Bucher Vaslin.

1945

Gaston Bernier founded the company Création des Constructions Méca-Métalliques Chalonnaises (CMMC).

1973

Institut du Développement Industriel (IDI) invests in a stake in the company.

1986

Acquisition of CMMC by Bucher Guyer, a company based in Switzerland.

Acquisition of Friulmeccanica, Bucher Guyer's Italian licensee and merger with Vaslin Italia.

2008

Opening of the Chilean subsidiary: Bucher Vaslin South-America.

1946

Gaston Bernier purchased the patents for the Vaslin presses and signed the first concession contract with Juttaud, a company based in Charentes.

1974

Acquisition of the continuous press manufacturer Coq. A record sales year.

1996

CMMC changed its name to Vaslin Bucher SA.

2011

Acquisition of the press manufacturer Sutter.

2000

Opening of the American subsidiary through the acquisition of KLR Machines: Bucher Vaslin North-America.

2014

Creation of the Argentine subsidiary: Bucher Vaslin Argentina.

An international presence



A worldwide network of authorised dealers

Selected for their professionalism, Bucher Vaslin dealers are the field organization that enables you to benefit from quality local service.

Our dealers, who are true regional specialists, are on hand to listen to your needs and provide you with their experience and expertise to help you choose the right equipment and winery set-up. They are eager to assist you before, during, and after the harvest.

See the list of our distribution partners on our website.



Bucher Vaslin S.A.

5 Rue Gaston Bernier - BP 70028
49290 Chalonnes-sur-Loire - France
T+33 (0)2 41 74 50 50
connect.buchervaslin.com/contact

Bucher Vaslin S.A.

Allée A. Nobel
66600 Rivesaltes - France
T+33 (0)2 41 74 50 50
connect.buchervaslin.com/contact

Bucher Vaslin S.r.l.

Viale Trieste 56
Romans d'Isonzo - Italia
T+39 0481 908931
commerciale@buchervaslin.com

Bucher Vaslin North-America

3100 Dutton Ave, Suite 146
Santa Rosa, CA 95407, California -
USA
T+1 707 823 2883
Bucher Vaslinna@buchervaslin.com

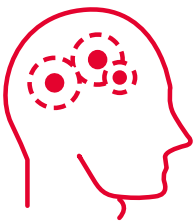
Bucher Vaslin South-America

La Vara 02429, San Bernardo
Santiago - Chile
T+22306 9800
info@buchervaslinsudamerica.com

Bucher Vaslin Argentina

Hernandarias 587
Godoy Cruz, Mendoza - Argentina
T+54 261 4390660
comercial@buchervaslinargentina.com

Our strengths

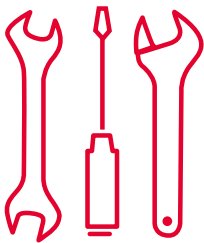


A dynamic of innovation

Confronting issues at the heart of the wine-making market, we strive to design innovative, targeted, and effective solutions to help your business succeed.

We are determined to work day by day to support your operations, enhance the value of your products, and provide you with the benefit of our experience to advance your development.

Our Research and Development department travels all over the world to listen to you, analyse and imagine new projects that meet your expectations.



Design and manufacturing

Bucher Vaslin controls the production chain of its equipment, all the way from the supply of raw materials to the delivery of the finished products from its factories in France and abroad.

Our employees benefit from training throughout their careers to acquire the know-how needed to keep pace with changes in manufacturing processes.

Our varied areas of expertise within the company enable us to manufacture the machine from the first sheet of stainless steel to be shaped, right through to the labels being affixed to the finished machine.



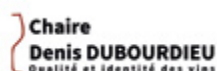
Standards accreditation labels

ISO 9001: version 2015

To ensure that your products are delivered on time, and that your equipment is successfully commissioned.

Some partnerships

Denis DUBOURDIEU research Chair



Supported by the Fondation Bordeaux Université and the Institut des Sciences de la Vigne et du Vin (ISVV)/ University of Bordeaux, the "Denis DUBOURDIEU - Quality and identity of wines" research Chair is backed by seven Bordeaux crus and four leading companies in the wine industry, for whom the quality of Bordeaux wines is a daily concern and oenological research an essential element.

The aim of the research Chair is to support the work of ISVV's Oenology research unit, which is not just about acquiring knowledge, but is even more about providing concrete answers to the needs of those involved in the wine industry.

Within this framework, the research Chair has funded post-doctoral work, theses and laboratory internships since 2018. It has also contributed to the acquisition of cutting-edge scientific equipment for the Oenology research unit.

Vignerons engagés (Committed winemakers) association label



The aim of the association is to:

- Promote the Vignerons Engagés label, the first CSR (Corporate Social Responsibility) and sustainable label dedicated to the wine industry in France. Its broad-spectrum, comprehensive and balanced specifications are audited by an independent control body every 18 months.
- Support all the actions of wine producers in a global sustainable development approach, to improve, differentiate and add new value to their production.
- Bring together players in the wine sector who share a common vision of CSR, to facilitate dialogue, synergies and the emergence of sustainable solutions, and to move forward together in a spirit of partnership. To achieve this, it groups together 4 colleges of members: producers (with label and in conversion), partners, traders and distributors.

Lien de la Vigne (Vinelink International)



Lien de la Vigne
VINELINK INTERNATIONAL

The Lien de la vigne association (VINELINK INTERNATIONAL), built on the principle of pooling innovative effort, is first and foremost a forum for exchange, a laboratory for technological and economic reflection, independent of any national or individual influence.

The creation of the association was prompted by the realization that many of the major problems facing the wine industry are often similar from one country or region to another:

Such as many serious vine diseases, for example. It is therefore desirable that research on the most crucial and often the most costly problems should involve all of the countries or regions concerned, firstly to make the best use of resources that are always limited, and secondly to better achieve critical mass by combining the complementary expertise of several regions.

The association has already organized a large number of research programs: firstly, in the field of wine production, there are two main areas of research: vine diseases and grape berry ripening.

CETIM (French technical centre for mechanical industries)

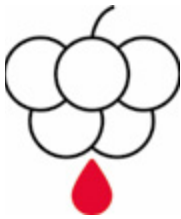


The mission of the CETIM is to promote technical progress, improve efficiency and guarantee quality in industry. Its aim is to provide mechanical engineering companies with the resources and skills they need to boost their competitiveness, participate in standardization and act as a link between scientific research and industry.

As an industrial partner, CETIM supports Bucher Vaslin in the industrial challenges of a low-carbon industry of the future.

Bucher Vaslin takes part in collaborative projects led by CETIM, which enable us to provide winegrowers with innovative, high-quality solutions.

Bucher Vaslin innovation



For over 75 years, Bucher Vaslin has been committed to providing the best possible support and to meeting the needs of wine industry professionals with new and innovative solutions.

Continuously evolving processes

At Bucher Vaslin, we are committed to meeting our customers' requirements. To do this in the best possible way, our engineers are working on the evolution of our machines' materials and processes.

Our motivation is to make the most of existing technologies, and to look even further afield to offer customized solutions.

Our engineers develop all our product ranges through experimentation, testing and calculation.

Our many years of experience have given rise to a wide range of processes, and all our personnel are still working hard to bring you innovations that meet your evolving needs.

| Major developments by range/year | 1980/1990 | 1990/2000 | 2000/2010 | 2010/2020 | Post 2020 |
|----------------------------------|----------------------------------|---|--|---|--|
| | | | | - Oscillating-cage destemming - Densimetric sorting - Draining trailer with compartments - Air-blade sorting | - Destemming with pendular motion system |
| Delta | - | - | - Optical sorting | | |
| | | | - Organ process - Inertys process - Redux process | - Aquapulse process - Maestro process | - Extraflow process - Swivel drains |
| Bucher | - | - | | | |
| | | - Tangential filtration of sediment and lees - Reverse osmosis | - Tangential filtration of tank bottoms - Filtration of sediment and lees | - In-line wine fining | - New-generation high-capacity filter - Lees filtration |
| Flavy | - Tangential filtration of wines | | | | |



Our Delta range innovations

Diversification to better sort your harvest

Sorting the harvest by hand certainly has its advantages, but it is costly in terms of time and labour.

The development of technology and the solutions put in place by our teams are designed to help you sort more accurately and save time.

Optical sorting allows you to get the most out of your harvest by sorting it in a precise, repeatable and personally configurable way. Equipped with a computer specifically designed for high-speed optics, image analysis and decision-making are rapid.

To complete our mechanical sorting range, an air-blade sorting process has also been designed.

This system allows you to automatically remove plant debris and insects, as well as pips, skins, dry berries, etc.

The question of sorting by density has also been researched and developed by our engineers. We offer a process that eliminates all floating waste, and allows you to select only the berries you want to keep, according to their density.

A new destemming process

Goodbye to threshers, destemmer shafts and rotating cages. Now is the turn of the pendular motion system to help you de-stem your harvest as effectively as possible, while greatly reducing the production of juice.

Our Bucher range innovations

From filling to washing, a complete cycle of innovation

From filling to washing, every stage has been reviewed and worked on to offer you the solutions that address your needs.

Extraflow process

This patented process ensures rapid drainage of the free juices and optimum filling of the press without rotation and with only one tilting of the tank. This major development allows very rapid extraction of the free juices, an increase in the filling capacity of the press and a reduction in pressing time.

Inertys process

The first process to protect grapes and juices from oxidation during pressing. The aromatic potential is thus preserved, resulting in wines that are more complex and fruity.

Organ process

Autonomous decision-making process that frees the operator from any programming constraints. By controlling the flow of juice, the press acts autonomously and in real time on pressure, duration and rotation. Pressurisation times are optimised for the desired degree of dryness.

Maestro process

Maestro is the solution for fully automating your press. From measuring the quantity of grapes in the press during filling to the final washing, everything is done automatically, without the need for the presence of an operator. This process offers real optimisation from filling to washing your press.

Automatic drains rinsing

Bucher presses offer a solution renowned for its efficiency in automatically rinsing drains. Alternating high-pressure water and air injections guarantee unparalleled results. This process, which is very easy to operate, saves a considerable amount of time in cleaning procedures.

Aquapulse process

Aquapulse is an automatic cleaning system for the inside of the press tank. The main benefits are increased safety for the operator (no intervention in the press), a significant reduction in washing times and a reduction in water consumption.

Quick-fit swivel drains no tools required

The self-cleaning electropolis drains have a attachment system that is easy to block and unblock by hand and without tools. They make washing easier, quicker, more efficient and consume less water.

Our Flavy range innovations

A response to environmental challenges.

The Eco-Energy process integrated into Flavy FGC filters has been developed to meet today's economic and environmental challenges.

It allows you to reduce the electrical power consumption of your filter by up to 95% (depending on the wine profile) thanks to its system of continuous adjustment of operating parameters.

A world reference in sediment and lees filtration.

For over 15 years, our expertise has allowed treatment of sediment and lees from sedimentation and flotation, as well as after cold stabilisation, with no restrictions on oenological products and their dosages.

Our mastery of the process guarantees recovery of up to 90% (depending on the initial load of suspended matter) of the juice from the sediment you produce.

The stable, high flow rate of our filters ensures daily treatment of up to 600 hl, depending on the filter model.

Simplified treatment for protein stabilisation of wines.

The in-line injection of Bentonite UF option ensures protein stabilisation and clarification of the wine in a single step.

This is a real simplification of the wine processing chain, with major benefits for the customer in terms of reduced operating costs, wines that are available more quickly for bottling and marketing, less arduous tasks at this stage of the winemaking process and less environmental impact through savings on water consumption.

A step towards reducing volatile phenols in wine.

The EP kit, combined with an osmosis unit from the Flavy ML range, acts on the volatile phenols in the wine, whatever the initial level of concentration.

It reduces them below the perception threshold to make your wine fruitier and more complex, without affecting its structure.

A single unit to filter everything!

Developed for the Flavy X-Treme machine, a new 3-in-1 option extends the filter's versatility, enabling it to filter your lees from fermentation and fining, as well as your wines and lees.

This option requires no dismantling of the modules. Simply select the lees to be filtered on your control screen and that's it! With the 3 in 1, you can be sure of greater peace of mind, greater efficiency and better product quality by filtering lees and must as they are produced.

Connectivity

Innovation at the heart of our practices.

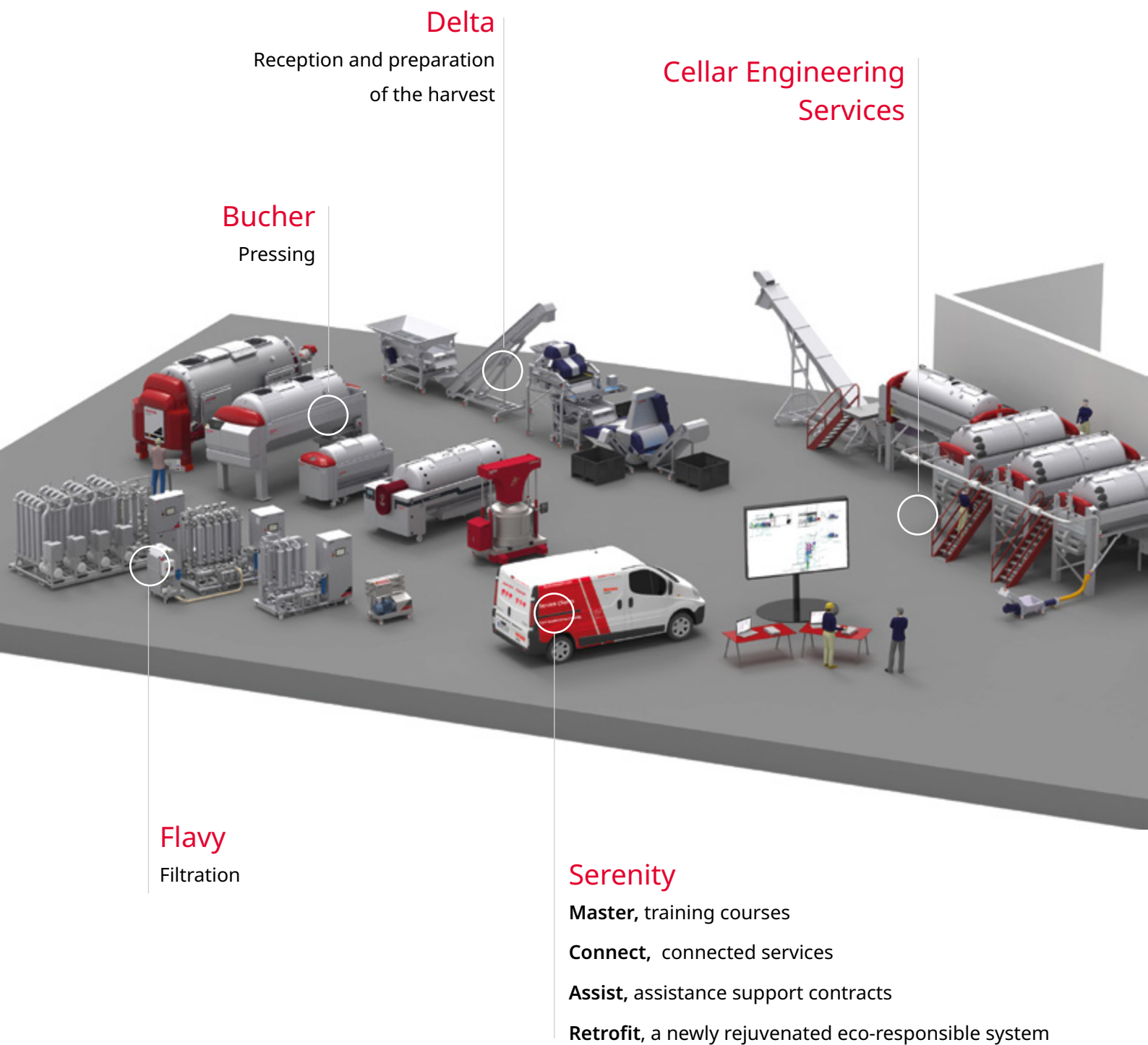
Through Service Connect, Bucher Vaslin has developed a whole range of digital offers to enable you to subscribe to our solutions, tailored as closely as possible to your essential needs in terms of assistance and remote monitoring of your equipment.

With secure, real-time access, the Winect application lets you monitor the progress of your filtration or pressing, receive alerts at the end of a cycle or in the event of an anomaly, and control your filter remotely (modify adjustment parameters, stop or restart a filtration or washing program).

Connectivity also means that you can get help more quickly thanks to remote assistance, so you'll have greater peace of mind, especially during the harvest period.

Connect Portal gives you access to a whole range of online training courses (e-Learning) to help you master the operation of your equipment (filters and presses) and to remind you of good practice, which is very useful for operators before the start of the harvest. You will also find information on all our online services, including all the technical documentation relating to your equipment.

An comprehensive range to meet all your needs



Cellar Engineering Service (C.E.S.)

Bucher Vaslin's cellar engineering service offers you personalised expertise to support you at every stage of your project.

Our team of experts is at your side to understand your specific needs, preferences and constraints. The team then designs a tailor-made solution and ensures that your project runs smoothly.



Safety and Security

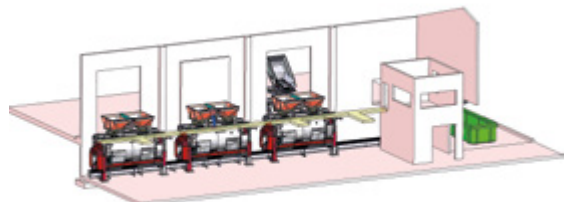
Risk analysis
Assistance in drawing up a risk prevention plan
Interaction with the safety coordinator

Studies

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

Drawing up of plans

2D/3D plans
Layout schematic
Interactions with civil engineering work



Our dedicated experts

Project account manager

The project account manager works with our network in collaboration with our sales representatives and dealers around the world.

This technical expert is responsible for analysing, costing and monitoring project implementation.

Attentive to needs, the project account manager adapts products and services to meet customer requirements.

Worksite supervisor

The supervisor coordinates the Bucher Vaslin teams and other service providers in the field.

The supervisor is responsible for safety at the installation site.

Designer

The designer is in charge of the preliminary design and implementation plans for our customers' installations.

The designer also manages interactions with civil engineering works.

Product adaptation

Customisation
Chassis and process modification
Automation and supervisory interaction

Complete end-to-end projects

Full integration of the product and its environment
Personnel and materials circulation zones
Piping
Structural support elements

Project progress monitoring

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



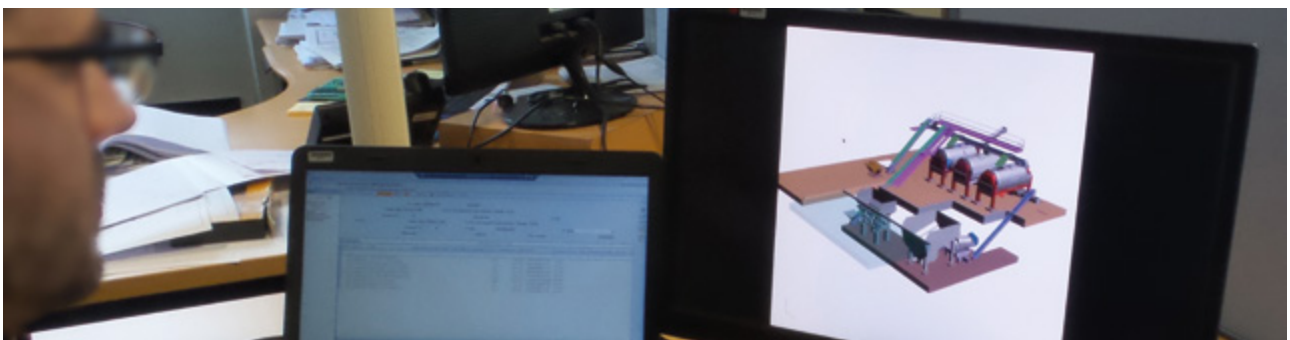
The services offered by the C.E.S.

Preliminary project study and costing

| Description | Benefits | Public concerned |
|--|--|--|
| The pre-project study enables preliminary plans to be drawn up and estimates to be drawn up. | <ul style="list-style-type: none"> - Feasibility validation - Awareness of constraints - Selection of the optimal solution - Awareness of the costs of different solutions | <ul style="list-style-type: none"> - End customer - Distribution network |

Assistance

| | Description | Benefits | Public concerned |
|--|--|--|------------------|
| Assistance in defining the need and creating the specifications | In relation with the sales force and the customer, this assistance makes it possible to define the requirement in its entirety (establishment and comparison of several operating scenarios, help in drafting the specifications). | <ul style="list-style-type: none"> - Sharing of experience and expertise - Formalisation of requirements - Provision of new solutions | - End customer |
| Technical assistance | The technical assistance is composed of technical references on the products in connection with the design office. | <ul style="list-style-type: none"> - Sharing of experience and expertise - Links with various internal Bucher Vaslin departments | - Dealers |
| Assistance in drawing up the risk prevention plan | This assistance enables the customer to comply with legal obligations by helping to draw up the documents. | - Assistance in drafting the risk prevention plan for a project | - End customer |



Follow-ups

| | Description | Benefits | Public concerned |
|---|---|---|--|
| Project monitoring | The customer is monitored and supported in the completion of his project (progress monitoring, coordination with the various parties involved, provisional and final acceptance in factories and on site, drawing up of end-of-site reports, creation of completed works file). | - Ensuring that the technical solution complies with the pre-project study | - End customer - Distribution network |
| Site monitoring and follow-up | This follow up involves presence and expertise, on the ground, for project monitoring and coordination. | - Control of deadlines and conformity of the final result with what was agreed with the customer | End customer |
| Sourcing and follow-up of partners | In conjunction with identified partners, external solutions are proposed according to requirements. (Drawing up specifications for suppliers and subcontractors, issuing invitations to tender, selecting partners, monitoring implementation). | - Offering a global solution that goes beyond Bucher Vaslin's catalogue of standard products and services | - End customer - Distribution network |

Made-to-measure

| | Description | Benefits | Public concerned |
|--|---|---------------------------------------|--|
| Creation of specific products and accessories | According to the customer's needs, depending on the contractual elements, it is possible to develop specific complements (mechanical study, electrical and electrotechnical study, automations study). | - Solution tailored to customer needs | - End customer - Distribution network - Bucher Vaslin R&D Department |
| Customisation and adaptation of standard products | Depending on the customer's needs, and depending on contractual elements, it is possible to follow up specific product adaptations (feasibility analysis in partnership with the product's design office, creation of modification specifications, design of customised peripherals or accessories, validation of modifications). | - Solution tailored to customer needs | - End customer - Distribution network |

The Flavy range

For over 30 years, Bucher Vaslin has been constantly innovating to develop its range of Flavy tangential filters. Today, Bucher Vaslin offers a wide range of applications that respect the product being treated: filtration of wine, sediment and lees.

The Flavy range meets the requirements of all players in the wine industry, from individual wineries to service providers, cooperatives, wine merchants and bottlers.

Bucher Vaslin's expertise in reverse osmosis offers the ideal tool for the corrective treatment of your musts and wines.



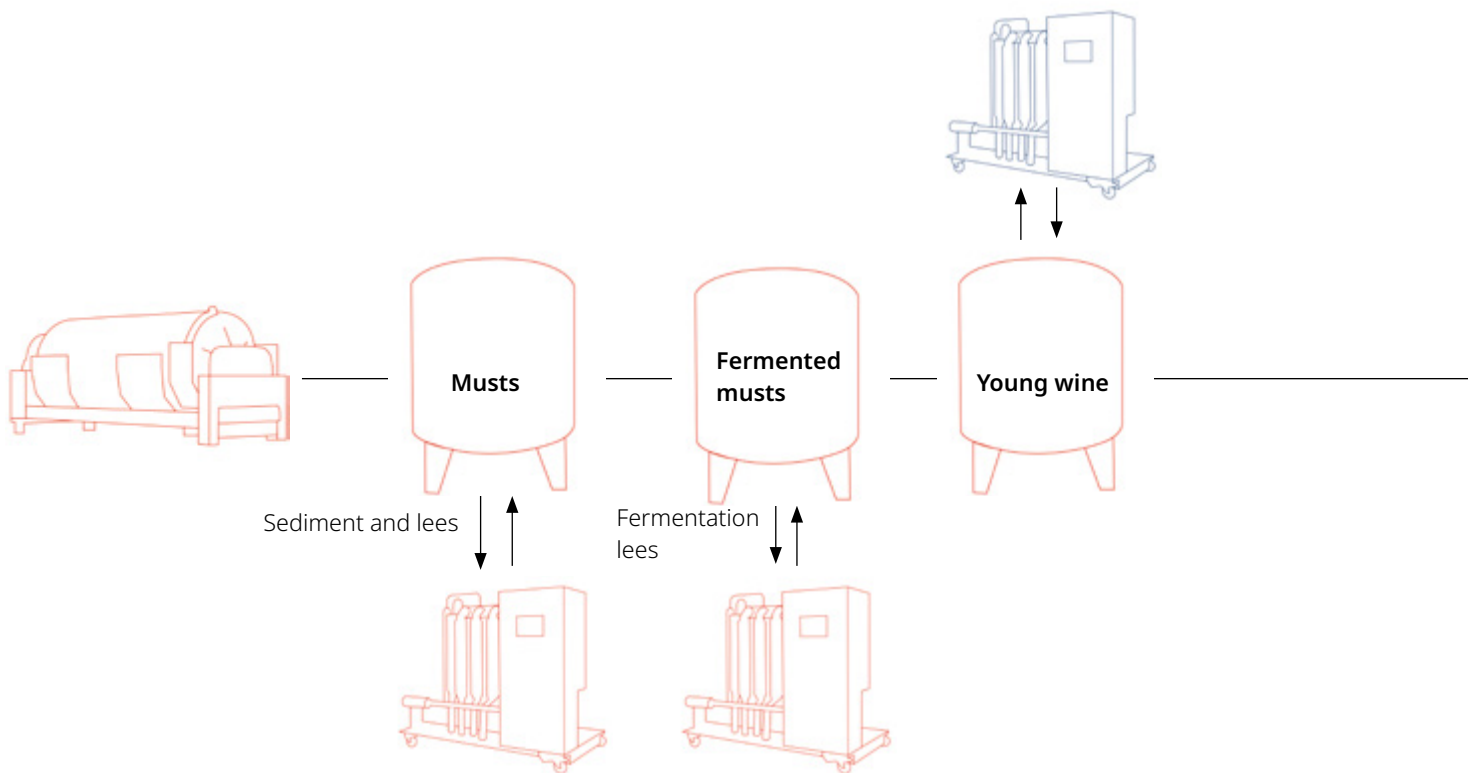
| | |
|-------------------------------|----|
| Filtration with Flavy FGC | 22 |
| Filtration with Flavy X-Wine | 28 |
| Filtration with Flavy X-Treme | 34 |
| Treatment with osmosis | 40 |

The vinification and filtration chain.

Pressing

Fermentations

Clarification filtration



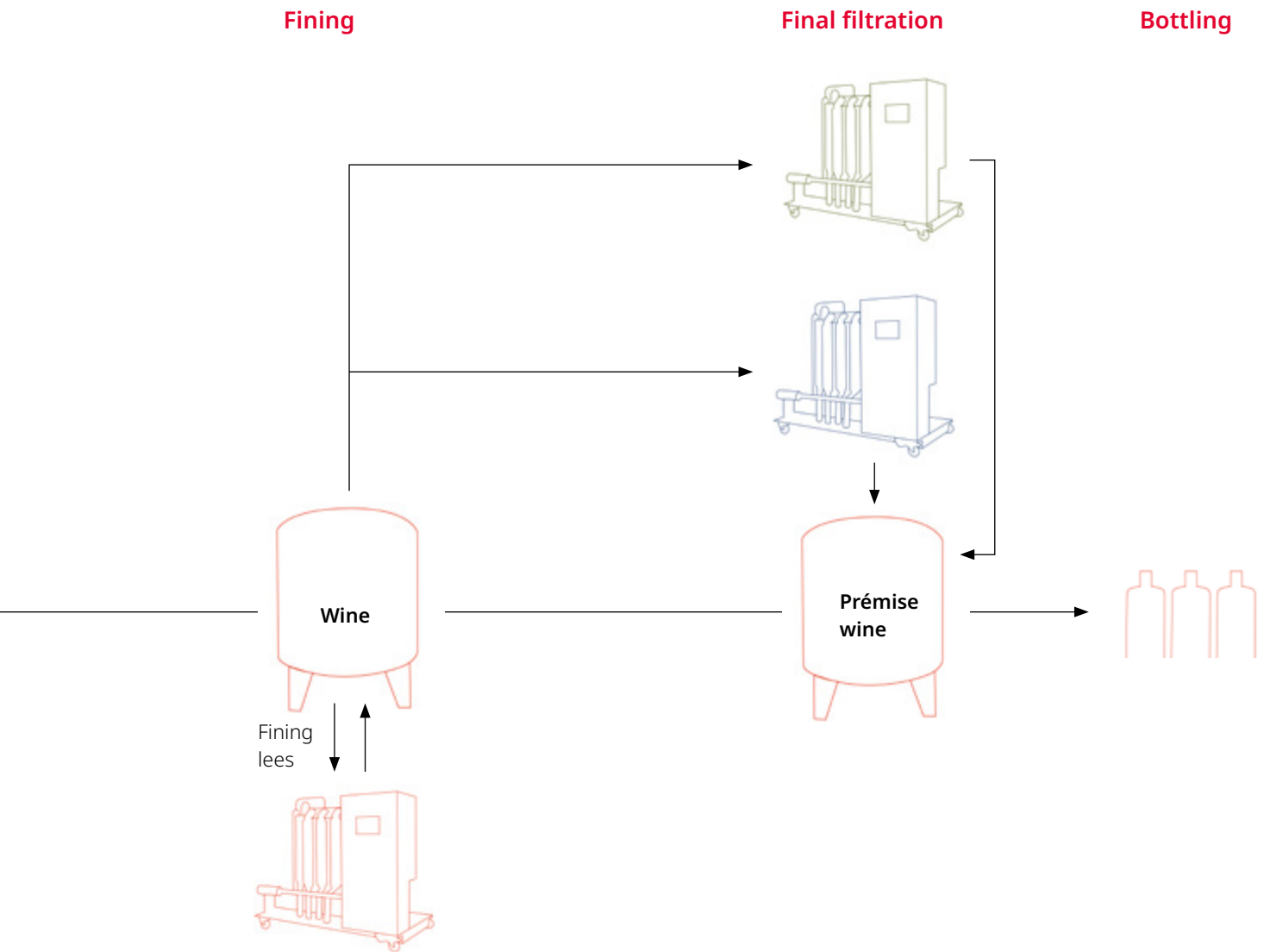
Flavy X-Treme: filtration of sediment, lees and wines



Flavy X-Wine: wine filtration



Flavy X- FGC: wine filtration



Which filter is for you?

| Merchants and bottlers | Cooperatives | Private wineries and estates | Service providers |
|------------------------|--------------|------------------------------|-------------------|
| FGC 1 | X-Treme 4 | X-Treme 2 | X-Treme 3 |
| FGC 2 | X-Treme 6 | X-Treme 3 | X-Treme 6 |
| FGC 3 | X-Treme 8 | X-Treme 4 | X-Treme 10 |
| FGC 4 | X-Treme 10 | X-Treme 6 | X-Wine 3 |
| | X-Wine 4 | X-Wine 2 | X-Wine 6 |
| | X-Wine 6 | X-Wine 3 | X-Wine 10 |
| | X-Wine 8 | X-Wine 4 | |
| | X-Wine 10 | X-Wine 6 | |

Filtration with Flavy FGC





Flavy FGC wine filtration



A concentration of technologies to meet the challenges of industrial structures.

Our response to energy, economic and social issues.

Reduce your electricity consumption

The filters are equipped with Eco-Energy technology (patented process): automatic adaptation of the operating processes according to the profile of the wine to be treated. This filter has a low carbon footprint due to its very low electricity consumption: divided by 2 on average and by 30 for white wines, compared with tangential filters on the market.

Improve your working environment

The Flavy FGC filter offers genuine assurance, comfort and peace of mind for operators in the winery thanks to its simple, easy operation, maximum safety (e.g. safety system preventing incorrect connection to a tank bottom) and very low noise levels during operation.

Reduce your operating costs

All the technological advances and innovations in the Flavy FGC range have resulted in high productivity, reduced waste volumes to unprecedented levels and lower consumption of electricity, water and cleaning products.

Last but not least, the Flavy FGC filter follows in the footsteps of the Flavy X-Wine filters, renowned for their ability to preserve the quality of filtered wines and their unfailing reliability.





Processes that respond to your requirements

The Flavy FGC filter is made up of a set of processes providing a response to today's challenges.

The production skid (1) is a modular design with 1 to 4 filtration circuits (depending on the customer's needs) and offers the possibility of increasing filtration capacity.

The concentration skid (2) reduces discharge volumes and ensures high, stable flow rates from the production skids. Flavy FGC is a compact, silent filter designed to meet your requirements.

| | FGC 1 | FGC 2 | FGC 3 | FGC 4 | |
|--|-------|---------|---------|---------|----------------|
| Flow rate range for white and rosé wines*. | 50-80 | 100-160 | 150-240 | 200-320 | hl/h |
| Flow rate range for red wines*. | 25-50 | 50-100 | 75-150 | 100-200 | hl/h |
| Flow rate range for in-line bentonite injection* | 25-35 | 50-70 | 75-105 | 100-140 | hl/h |
| Total power | 30 | 40 | 50 | 60 | kW |
| Length | 2800 | 3600 | 4400 | 5200 | mm. |
| Width | 2440 | 2440 | 2440 | 2440 | mm |
| Height | 2510 | 2510 | 2510 | 2510 | mm |
| Floor area | 6.5 | 8.2 | 10.7 | 12.6 | m ² |
| Tare weight | 1600 | 2100 | 2700 | 3300 | kg |
| Water weight | 1900 | 2700 | 3500 | 4300 | kg |

(*) Flow rates measured for wines with turbidity < 100 NTU and tank volume = 500 hl - Non-contractual values, depending on the profile of the wine and for pipes of diameter 80 - A smaller diameter pipe will reduce filtration flow rates.

Technology at your service



Connected filter

- "Industry 4.0" compliant
- Access to a whole catalogue of digital services.
- Winect application for remote monitoring and control.



Low power consumption

- The Eco-Energy Process can halve electricity consumption on average.
- Gravity-feed filter.



Back-filtration

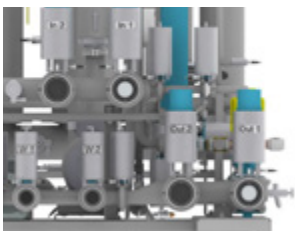
- Skid-by-skid back-filtration, without interrupting filtration.
- Recycled gas back-filtration - patented process (low maintenance costs and low gas consumption).

In-line injection of UF bentonite

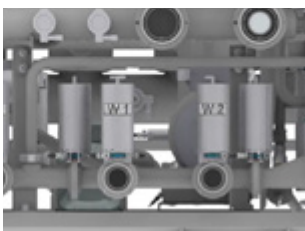
- Protein stabilisation of white and rosé wines.
- Simplification of the wine processing chain.
- Less cleaning of pumps, pipes and vats.
- Wine treatment without the use of additives.
- Wines available for bottling more quickly.
- More management of tank bottoms, which can represent 3 to 5% of the volume treated.

**Injection of oenological products**

- Injection of up to 3 oenological products (examples: MCR, metatartaric acid, UF bentonite) and 3 at the filter outlet (examples: CMC, SO₂, gum arabic).

**Selector 2 inlets / 2 outlets**

- Set of 2 inlet valves and 2 outlet valves.
- Allows filtration sequences to be programmed on different tanks, with cleaning cycles interposed as required: sequences of filtrations or blends.

**Wash water drain valve selection**

- Wash water (dirty water) can be separated from the last filter rinse water (clear water).
- This clear water can be reused for other purposes (washing vats, floors, etc.).
- Helps reduce water consumption in the cellar.

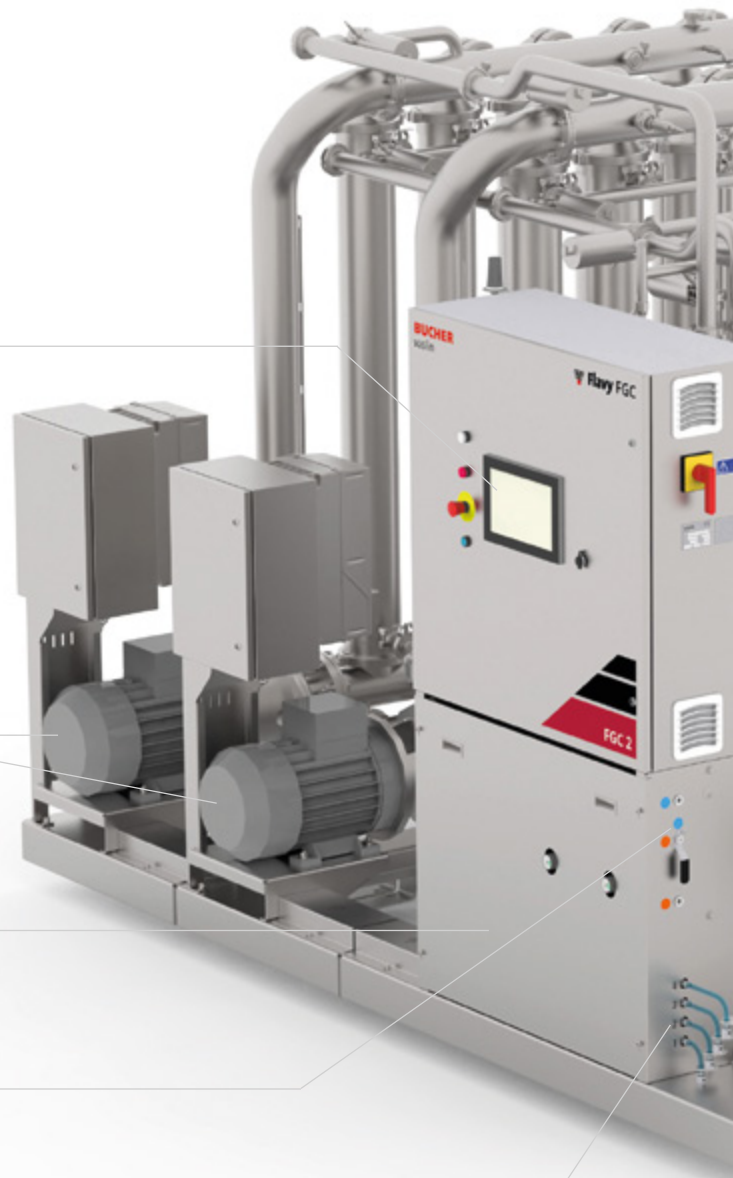
Control touch-screen

Production skid

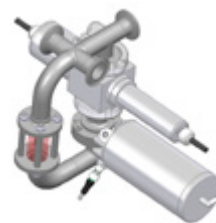
Pneumatic cabinet

Air/nitrogen supply

Washing product supply

**Sparkling wine**

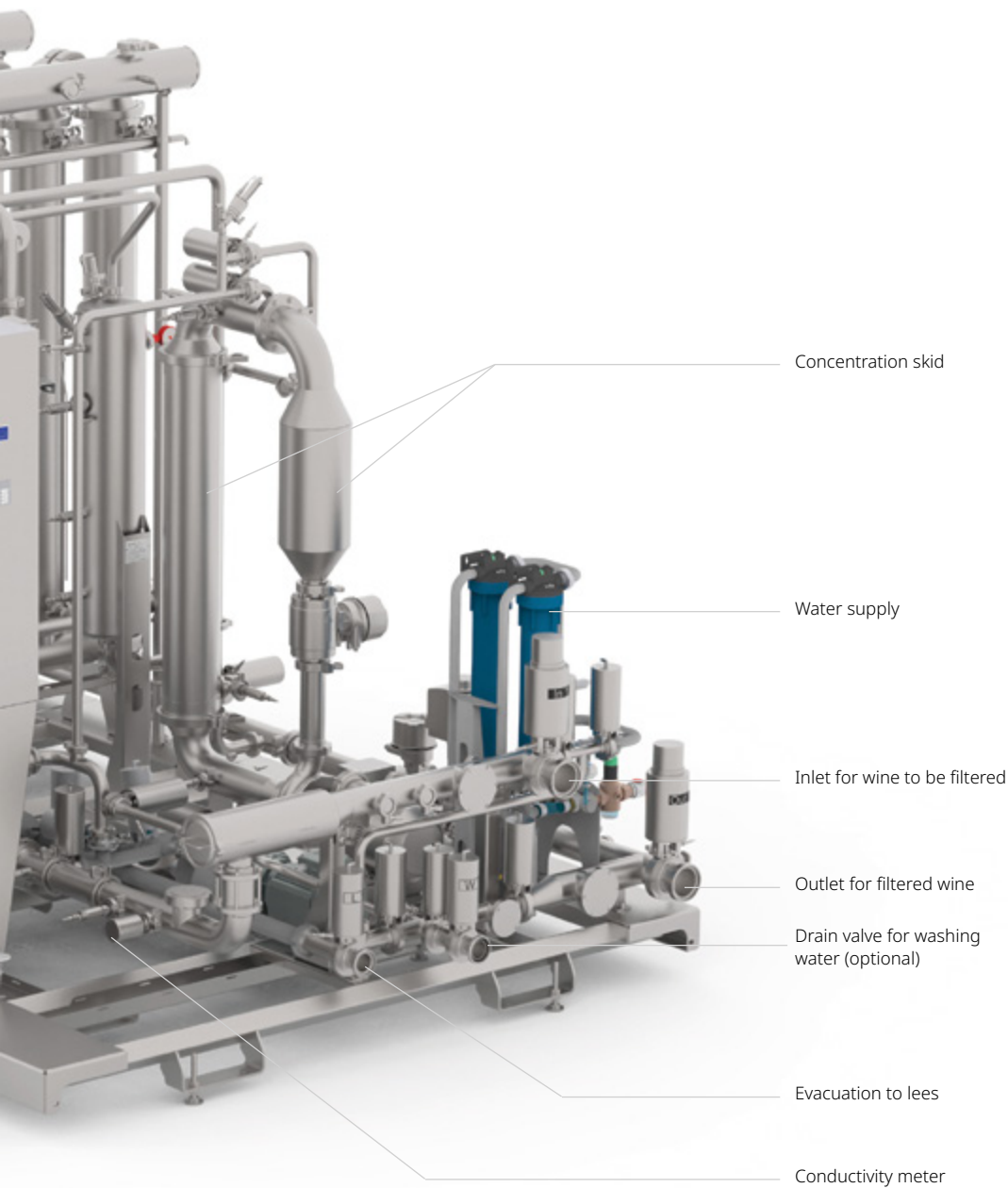
- Closed tank to closed tank filtration from 1 to 6 bar maximum.
- Connection of the filter to the cellar's isobaric network to ensure equipressure with the mother tank and the reception tank.

**Turbidimeter**

- Automatic control of turbidity in filtered wine.

Volumeter

- Measurement and logging of volumes of wine entering the filter.



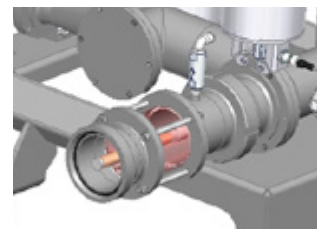
Remote control

Remote control can be used to start or pause the filter remotely in order to perform an operation.



Hot water line purging drain

- Temperature safety device for hot water entering the filter (set at 40°C).
- Avoid rinsing or washing with water that is not hot enough.
- Improves rinsing or washing efficiency.



Nitrogen injection

- Decarbonises filtered wine.
- Nitrogen diffuser for filtered wine.
- Manual adjustment of nitrogen flow rate by the operator.
- Also available for 2-inlet/2-outlet selector.

2 water and gas connections on filter inlet and outlet

- Allows the wine pipes upstream and downstream of the filter to be inerted for better protection of the wine against oxidation (using nitrogen).
- Makes it easy to drain pipes (gas or water pressure).
- Simplifies pipe rinsing.
- Also available for 2-inlet/2-outlet selector.

Detection of wine prefilter clogging

The filter pauses if there is a "prefilter clogged" alert.

100µ pre-filter grille

Protection of the filter against scale crystals during the filtration of cold wine.

Sterilisable tasting tap

Sampling valve for microbiological testing.



Filtration with Flavy X-Wine



Flavy X-Wine wine and cider filtration



The best performance on the market, making it a firm favourite of winegrowers and cooperative wineries.

A unique expertise

The Flavy X-Wine filter is renowned on the market for giving the best flow rates on the most difficult wines. This result is the fruit of 30 years' experience in wine filtration. Controlling and preventing clogging, combined with a gentle (very low pressure), flexible process and a high-performance filtration membrane, ensures stable, regular flow rates throughout your filtration process.

A wide range of applications

The Flavy X-Wine filter is extremely versatile, capable of treating raw wines with high turbidity, red wines from thermovinification, wines from cold storage (-4°C), fined wines, sparkling wines and wines ready for bottling. It is possible to block fermentation and filter wines containing PVPP.

- Suitable for all types of products (brut wine, premise wine, cider, etc.)
- Wide choice of filtration modes
- Wine qualities preserved

Low environmental impact

The Flavy X-Wine filter stands out for having the lowest consumption of water and cleaning products on the market.

The washing water separation option contributes even further to reducing environmental impact by allowing the last rinse water from the filter to be reused for other purposes in the cellar (cleaning the vat room, floors, etc.).

Finally, the Flavy X-Wine filter is renowned for preserving the quality of filtered wines and for its rock-solid reliability.



Ergonomically designed for ease of use

The Flavy X filter is a concentrate of technology, equipped with components that are renowned in the industrial sector for their unfailing reliability, and with maximum safety for greater peace of mind for operators.

The (optional) filter can be adapted for cider filtration (1), with back-filtration returned to a separate tank for greater stability of filtration rates.

The filter is pre-equipped (2) for quick and easy fitting of options at any time.

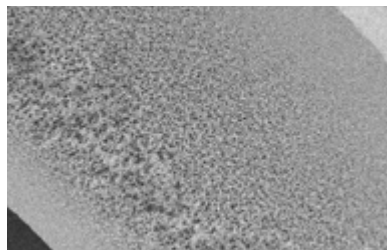
| | X-Wine 2 | X-Wine 3 | X-Wine 4 | X-Wine 6 | X-Wine 8 | X-Wine 10 | |
|--|----------|----------|----------|----------|----------|-----------|------|
| Flow rate for racked dry white wine | 24 | 36 | 48 | 72 | 96 | 120 | hl/h |
| Flow rate for dry white and rosé wines | 17 | 25 | 34 | 50 | 68 | 85 | hl/h |
| Flow rate for raw red wine | 10 | 15 | 20 | 30 | 40 | 50 | hl/h |
| Flow rate for thermo brut red wine | 8.5 | 12 | 17 | 25 | 34 | 42 | hl/h |
| Flow rate for cider | 10 to 15 | 10 to 15 | 20 to 30 | 20 to 30 | 28 to 40 | 35 to 50 | hl/h |
| Total power | 10 | 10 | 18 | 18 | 27 | 27 | kW |
| Length | 2390 | 2390 | 2940 | 2940 | 3310 | 3310 | mm |
| Width | 1740 | 1740 | 2230 | 2230 | 2380 | 2380 | mm |
| Height | 1980 | 1980 | 2200 | 2200 | 2190 | 2190 | mm |
| Floor area | 7 | 7 | 10 | 10 | 11 | 11 | m² |

Technology at your service



Connected filter

- "Industry 4.0" compliant
- Access to a whole catalogue of digital services.
- Winect application for remote monitoring and control.



A gentle, flexible process

- No clogging at depth.
- Highly efficient back-filtration.
- Exclusive Bucher Vaslin hydrophilic membrane, with an asymmetrical structure, specially designed for wine filtration.



Low environmental impact

- Low water consumption.
- Separation of the washing water.



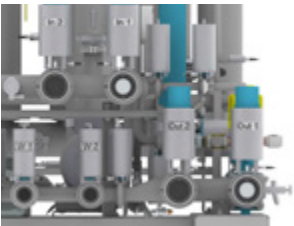
In-line injection of UF bentonite

- Protein stabilisation of white and rosé wines.
- Simplification of the wine treatment chain.
- Less cleaning of pumps, pipes and tanks.
- Wine treatment without the use of adjuvants.
- Wines available for bottling more quickly.
- More management of tank bottoms, which can represent 3 to 5% of the volume treated.



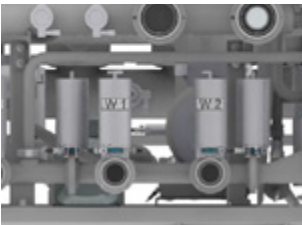
Injection of oenological products

- Injection of up to 3 oenological products (examples: MCR, metatartaric acid, UF bentonite) and 3 at the filter outlet (examples: CMC, SO₂, arabic gum).



Selector 2 inlets / 2 outlets

- Set of 2 inlet valves and 2 outlet valves.
- Allows filtration sequences to be programmed on different tanks, with cleaning cycles interposed as required: sequences of filtrations or blends.



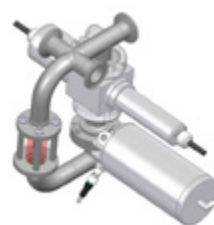
Wash water drain valve selection

- Wash water (dirty water) can be separated from the last filter rinse water (clear water).
- This clear water can be reused for other purposes (washing vats, floors, etc.).
- Helps reduce water consumption in the cellar.



Sparkling wine

- Closed tank to closed tank filtration from 1 to 6 bar maximum.
- Connection of the filter to the cellar's isobaric network to ensure equipressure with the mother tank and the reception.



Turbidimeter

- Automatic control of turbidity in filtered wine.



Conductivity probe

- Automatic check for the absence of washing product residues after regeneration. Testing and safety tool required during an IFS-BRC type audit.

Filtration module(s)

Wine pre-filter

Intake of the product to be filtered

Outlet of the filtered product

Discharge to lees

Water filtration bowl





Feet for frame Flavy X - Wine 4/ 6
Flavy X-Wine 4 and 6 filters can be mounted on wheels or fixed feet.



Remote control

Remote control can be used to start or pause the filter remotely in order to perform an operation.

Calibrated valve

Used to adjust back pressure to ensure good quality back-filtration. To be used, for example, when the reception tank is at a level lower than the filter.

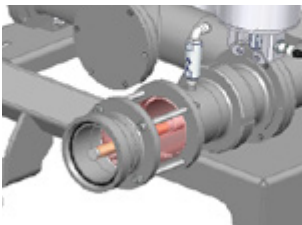
Washing water filtration

In the case of water with a fouling index > 3, we recommend installing 3 stages of water filtration (5 μ - 1 μ - 0.5 μ) for maximum efficiency in rinse and washing operations.



Sterilisable tasting tap

Sampling for microbiological analysis.



Nitrogen injection

- Decarbonises filtered wine.
- Nitrogen diffuser at the filtered wine outlet.
- Manual adjustment of nitrogen flow rate by the operator.
- Also available for 2-inlet / 2-outlet selector.

Wine pre-filter control

The filter pauses if there is a "prefilter clogged" alert.


100 μ m pre-filter grille

- Protection of the filter against scale crystals when filtering chilled wine.



Hot water line purging drain

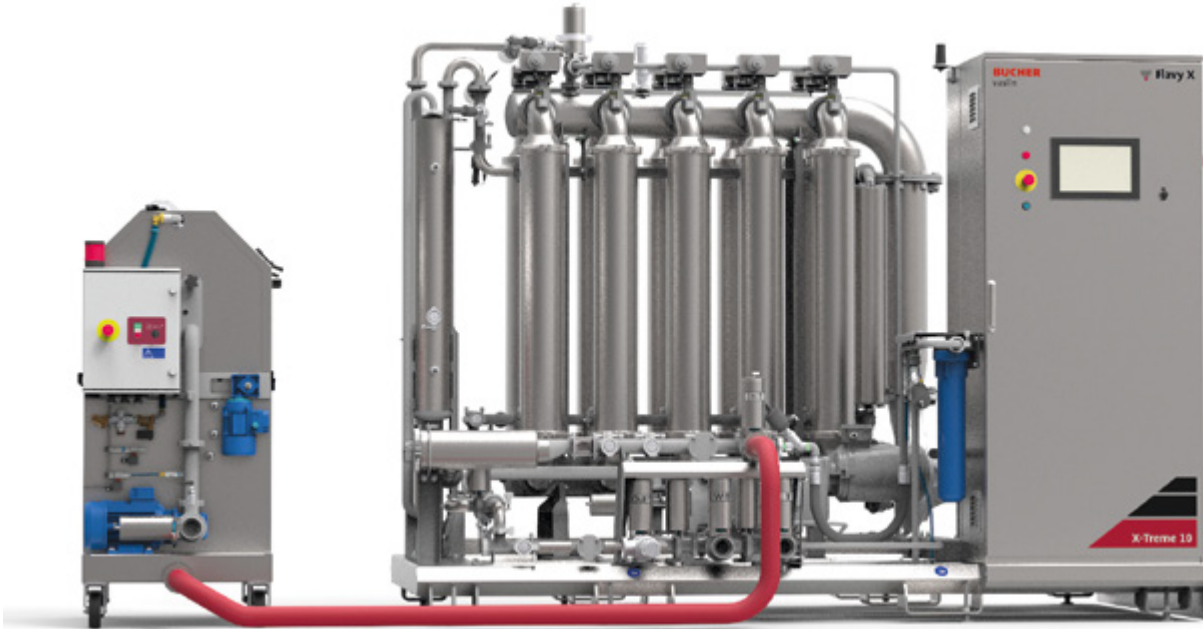
- Temperature safety device for hot water entering the filter (set at 40°C).
- Avoid rinsing or washing with water that is not hot enough
- Improves rinsing or washing efficiency.



Filtration with
Flavy X-Treme



Filtration of wines, must and lees with Flavy X-Treme



The reference for sediments filtration. It represents the culmination of almost 20 years' experience in vineyards all over the world.

- Time saving
- Reduced water consumption
- Reduced waste

A unique expertise

The Flavy X-Treme filter is recognised on the market for giving the best performance (flow rate, juice recovery rate) whatever the type of sediments. Clogging control and concentration management in the filtration circuit, combined with a gentle, flexible process and a high-performance filtration membrane, ensure stable flow rates throughout the filtration process.

You can carry out filtrations lasting up to 20 hours without stopping the machine, without intermediate rinses and without regular changes to the process parameters. Everything is managed and controlled by the filter.

The Flavy X-Treme filter is coupled to the DB pre-filter, ensuring pre-filtration of the sediments to eliminate the coarsest parts (skin debris, stalks, pips, or any other particulate elements).

A wide range of applications

This multi-purpose filter is capable of treating sedimentation sediments, flotation sediments and stagnation sediments.

It can process sediments from juices containing oenological products such as bentonite, activated carbon, PVPP, gelatin, pea protein, etc., without restrictions. It is also designed to filter all types of wine and is the solution for treating your fermentation and fining lees.

Low environmental impact

The Flavy X-Treme filter stands out for having the lowest consumption of water and cleaning products on the market. The wash water separation option contributes even further to reducing environmental impact by allowing the last rinse water from the filter to be reused in the cellar for other cleaning purposes.

Last but not least, it is renowned for its ease of use and rock-solid reliability.



The 3-in-1 option for filtering lees with Flavy X-Treme.

To increase the filter's versatility and make it an essential product in your winery, Bucher Vaslin offers you the 3-in-1 option. You can filter all your products (must, lees and wine) with a single machine.

With this option, you can filter your fermentation and fining lees as they are produced. The quality is preserved. The filtered product can then be reincorporated into the wine.

| | Flavy X-Treme 2 | Flavy X-Treme 3 | Flavy X-Treme 4 | Flavy X-Treme 6 | Flavy X-Treme 8 | Flavy X-Treme 10 | |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------|
| Sediments average flow rate* (%) | 5 | 7.5 | 10 | 15 | 20 | 25 | hl/h |
| Maximum volume of sediments to be treated/day (20 hours) | 115 | 175 | 230 | 350 | 460 | 580 | hl |
| Average flow rates for fermentation lees** | 5 | 7.5 | 10 | 15 | 20 | 25 | hl/h |
| Average flow rates for fining lees** | 3.6 | 5.4 | 7.2 | 10.8 | 14.4 | 18 | hl/h |
| Dry white wine, fined and racked*** | 12 | 18 | 24 | 36 | 48 | 60 | hl/h |
| Dry brut white and rosé wine*** | 8 | 12 | 16 | 24 | 32 | 40 | hl/h |
| Dry red wine*** | 5 | 7 | 10 | 15 | 20 | 25 | hl/h |
| Width (mm) | 1214 | 1214 | 1705 | 1705 | 1805 | 1805 | mm |
| Length (mm) | 1954 | 1954 | 2528 | 2528 | 2889 | 2889 | mm |
| Height (mm) | 2020 | 2020 | 2304 | 2304 | 2299 | 2299 | mm |

(*) Data for sediments with 15% TSS (4000 rpm for 30 minutes) and juice recovery rate = 85%.

(**) Data for lees with less than 20% TSS (4000 rpm for 30 minutes).

(***) Non-contractual indicative flow rates for wine filtration.

Technology at your service



Connected filter

- "Industry 4.0" compliant
- Access to a whole catalogue of digital services.
- Winect application for remote monitoring and control.



Unrivalled performance

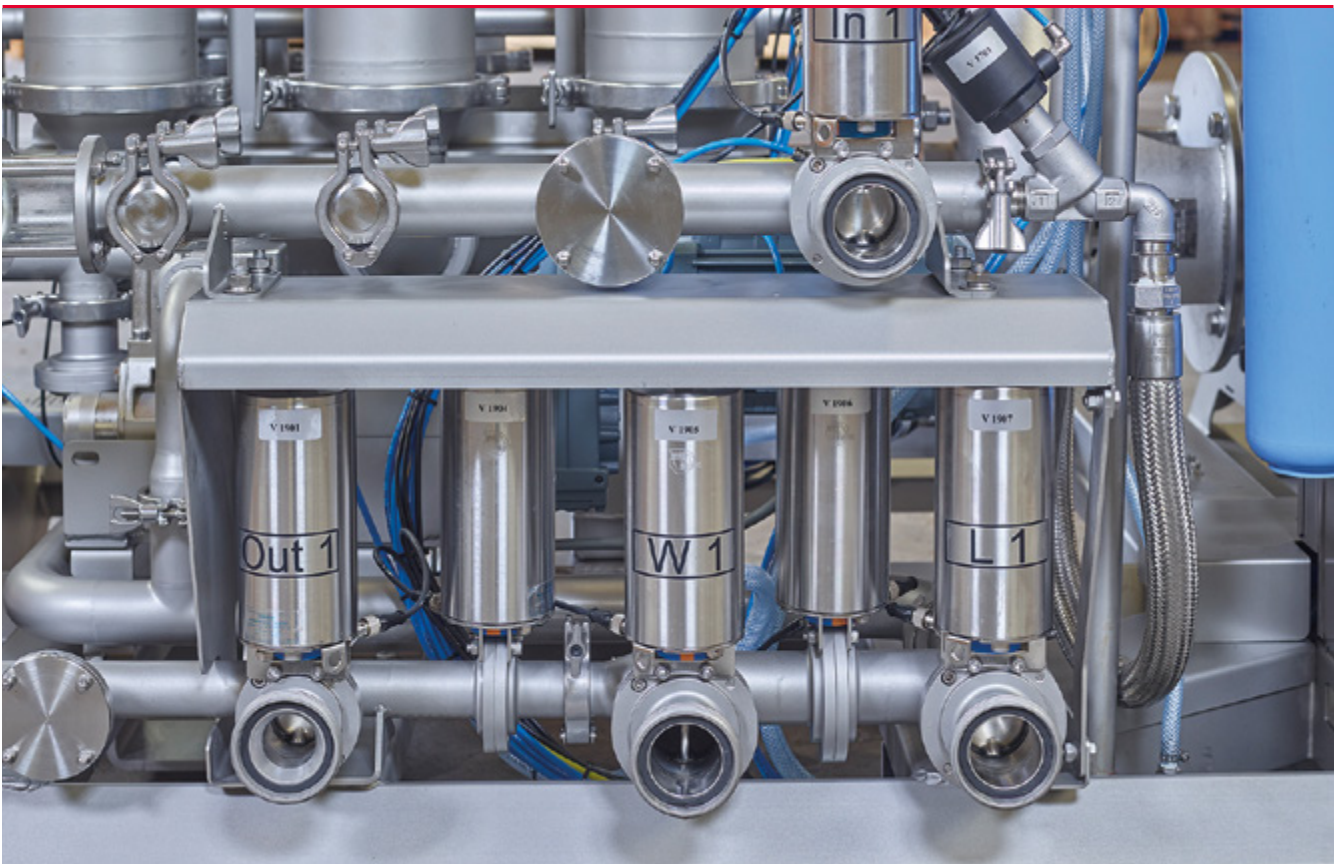
- Highest flow rates.
- The best recovery rates in juice (sediments) or wine (lees).
- The lowest consumption of water and cleaning products.
- Simple, easy-to-use filter.



Lees filtration

Filtration of all your lees from fermentation and fining as and when they are produced, to ensure gains in quality. The specially developed process ensures very high wine recovery rates for optimised profitability.

Focus on equipment and solutions

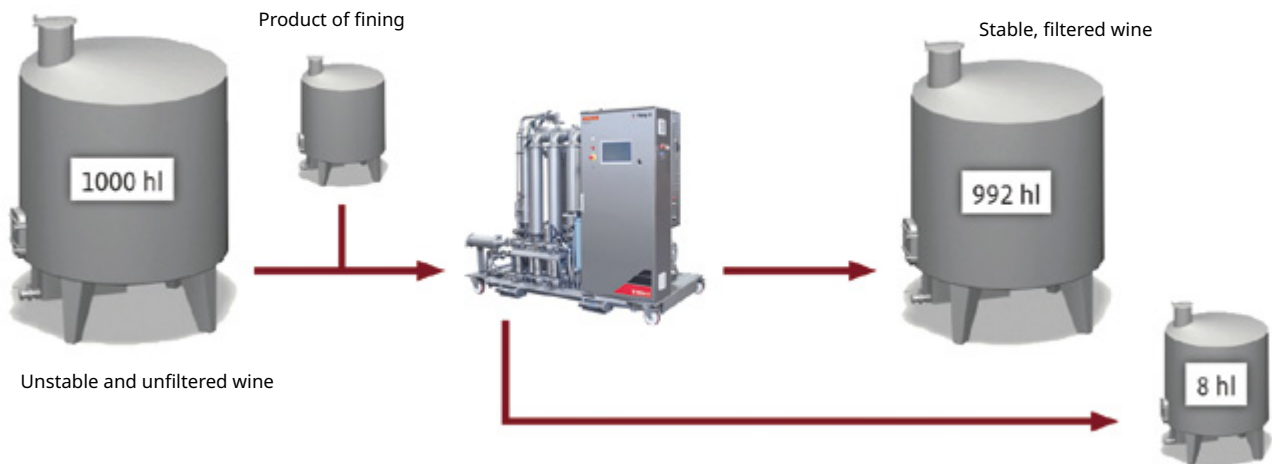


Bucher Vaslin provides equipment and solutions to complement your filters.

- Time saving
- Simplifying tasks
- Easy to use

In-line injection of UF bentonite for protein stabilisation of white and rosé wines

This type of fining simplifies the wine processing chain by reducing the need to clean pumps, pipes and tanks. Wines are processed without the use of additives, and are available for bottling more quickly.



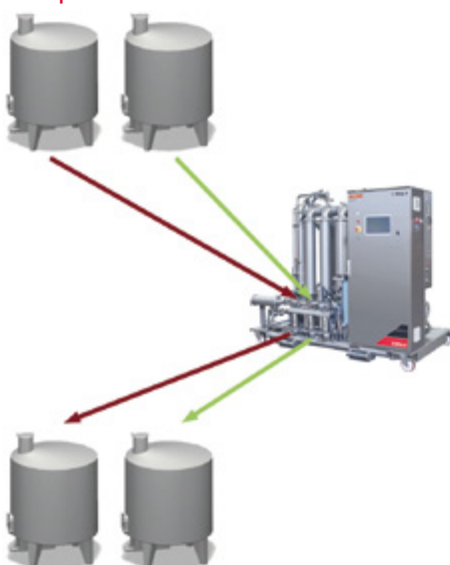
Bucher Vaslin also offers the option of injecting up to 3 oenological products at the filter inlet and 3 at the filter outlet, to further simplify work in the winery, improve working conditions and shorten wine preparation times.

Selector 2 inlets / 2 outlets

This option, added to your Flavy X-Wine filter, enables automatic sequencing of filtration sequences without the presence of an operator, as well as direct assembly during filtration.

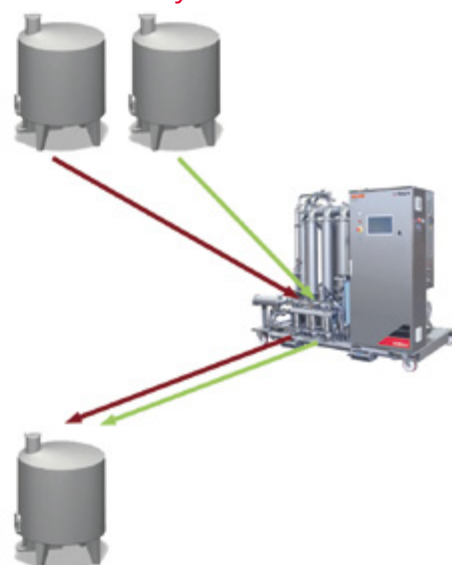
It saves time and simplifies work in the winery.

Sequence



Assembly

Inlets



Outlets



Treatment
with osmosis

Reverse osmosis Flavy ML and Flavy EP



A concentration of technologies to meet the challenges of industrial structures.

A scalable, simple and secure machine

The Flavy ML osmosis unit is available in models from 2 to 12 modules. It can be easily scaled up without any changes, simply by adding modules.

The PLC contains all the essential information (extracted volume) and the appliance is fitted with safety devices that make it perfectly autonomous (pressure, temperature, flow rate).

The ML osmosis unit is fitted with the least clogging membrane on the market, accepting input treatment products of up to 400 NTU, compared with only 5 to 20 NTU for other membranes.

A wide range of applications

The Flavy ML osmosis unit has a wide range of applications. They may be implemented in accordance with current local legislation. The range offers two types of membrane, "X" or "O", with different selectivity levels, depending on your needs.

- Concentration of grape must
- Reduction of sugar in the must
- Wine concentration
- Reduced volatile acidity
- Reduction of ethyl phenols in the wine
- Partial dealcoholisation of wine



Simplicity at your fingertips

The PLC (1) of the Flavy ML osmosis plant displays and controls:

- working pressure
- the temperature of the liquid being treated (with safety system),
- of the water flow to be extracted (with safety system),
- of the volume of water extracted (with program).

Flavy ML is a scalable machine that allows treatment capacity to be increased simply by adding membranes (2).

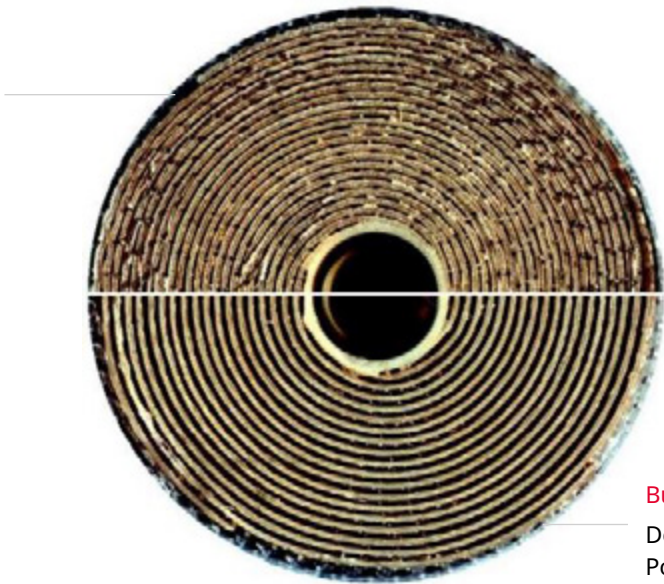
| | Flavy ML2 | Flavy ML4 | Flavy ML6 | Flavy MLX8 | Flavy ML10 | Flavy ML12 | |
|--------------------|-----------|-----------|-----------|------------|------------|------------|-----|
| Average flow rates | 200 | 400 | 600 | 800 | 1000 | 1200 | l/h |
| Width | 630 | 630 | 630 | 630 | 800 | 800 | mm |
| Length | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | mm |
| Height | | 1216 | 1295 | 1455 | 1626 | 1786 | mm |

* Indicative and non-contractual flow rates for musts at 10-11° potential alcohol, 15°C temperature and 70 bar pressure.

The membrane in detail

Other technologies

Single spacer: 0.75 mm
Required juice turbidity:
5 to 20 NTU



Bucher Vaslin technology

Double spacer: 1.2 mm
Possible turbidity of juice: 400 NTU

Multi-usage equipment

Concentration of grape must

Particularly useful when the harvest has been diluted by heavy rain.

Osmosis extracts water (permeate) and increases the sugar content, while concentrating the structure.

Sugar reduction in must - Redux process

To obtain a less alcoholic wine, osmosis reduces the sugar content of the must before fermentation.

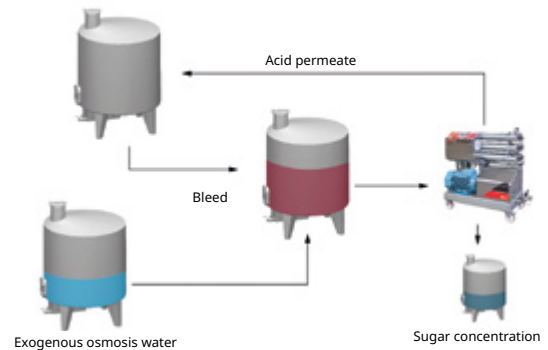
This will allow alcoholic fermentation to proceed more smoothly, without the risk of stagnation or acetic deviation.

Wine concentration

Concentrating a wine is useful when it lacks a little structure despite an acceptable level of alcohol.

Extracting a few litres of water from the wine by osmosis will improve its intensity.

Flavy membranes carry out this concentration by modifying or not the alcohol content of the wine.

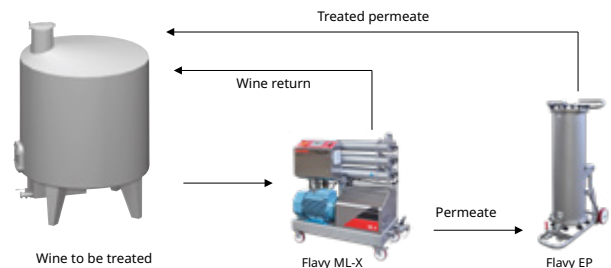


Reduction of ethyl phenols in the wine

Volatile phenols are derived from the metabolism of a contaminant yeast: *Brettanomyces*.

An excess of volatile phenols will give the wine bad aromas: smells of leather, stables and horse sweat.

With a Flavy ML osmosis unit fitted with a special Flavy EP accessory, it is possible to reduce these volatile phenols below the perception threshold, without altering the quality of the wine.



Partial dealcoholisation of wine

Reducing the alcohol in your wine by one, two or three degrees can be very useful in meeting market and consumer demand.

The process developed by Bucher Vaslin allows you to use only the Flavy ML osmosis unit to correct the alcohol content of your wine.

Complementary equipment and solutions



EP kit

- Coupled with the osmosis unit to reduce ethyl phenols

Kit 2 tubes / 2 X membranes

Kit 2 tubes / 2 O membranes

Flow controller for sweet wines



Retrofit, give your machines a new lease of life



Our Retrofits help you to make an ecological transition by overcoming the obsolescence of machines while preserving their original structure.

“

The benefit for me is that it's going to be more practical to use, more intuitive, more modern and so there is less downtime.

”



Video description

Basic retrofit



The benefits of this service

A turnkey installation is implemented by our qualified teams, with advice tailored to your needs.



Basic retrofit

The Basic Retrofit consists of replacing the TMA PLC with an adjusted solution that enables the installation of a latest-generation PLC with a 12" colour touch-screen and a user-friendly, intuitive interface.

This service enables the machine to be connected remotely for optimum monitoring (depending on compatible models). This makes it possible to monitor equipment processes using data logging. Retrofit Basic makes the machine more reliable and reduces downtime.

Products concerned by the Basic Retrofit:
- Flavy FX

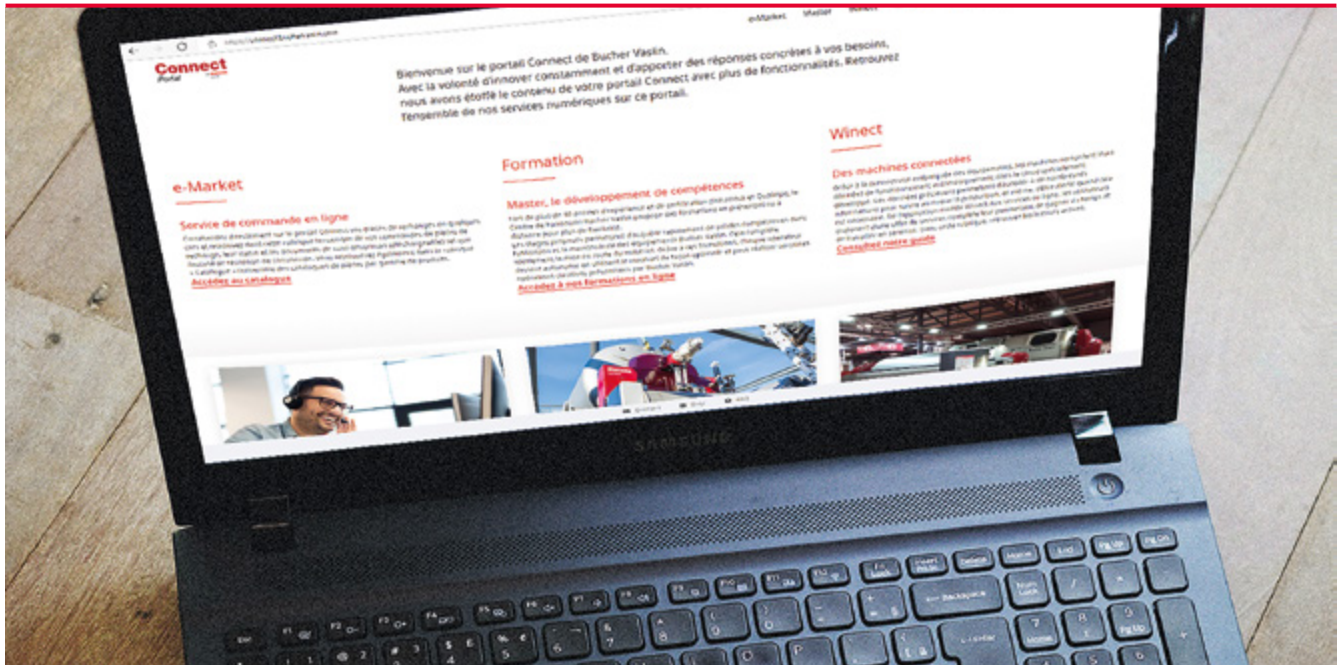
Public concerned
User customers and distributors



Connect,
our online services



Connect



Subscribe to Connect services and learn about winemaking 4.0

Connection to Connect services is possible on our standard equipment or by adding a compatible kit, supplied and installed by Bucher Vaslin.

Winect application

Bucher Vaslin's Connect offer gives you a new dimension of service. Using our Connect system, the machines automatically transmit their operating data to the specially developed cloud.

Users can take advantage of the latest digital services offering them brand new functionalities on their machines.

From the Winect mobile application to online services, users have a complete range of services at their disposal, allowing them to gain time and peace of mind.

Connect portal

We provide you with online, configurable and innovative tools on the Connect Portal:
connect.buchervaslin.com.

There are a number of areas to help you with your enquiries.

From online account management to managing your machine fleet, this portal also allows you to consult our online technical catalogue and place orders.

It is also possible to talk to Bucher Vaslin, with a specific focus of your needs and requests.



Upgrade Connect kit

The Upgrade Connect kit enables any compatible machine to be connected to Connect services, and provides one year's access to these services, including the Winect mobile application and connection to the cloud.

The installation of the kit should be carried out by the distributor.

It comprises:

- A 3G/4G compatible modem router
- An ethernet connection to the PLC
- DIN rail mounting in the cabinet
- The existing 24VDC power supply
- References vary for different countries.



Connection to the cloud

This service enables the communication equipment installed in the machine to be activated and connected to mobile networks.

The equipment connects to the best performing mobile network at the installation site.

The machine's data is uploaded to the Bucher Vaslin cloud. This connection is required to subscribe to any connectivity offer.



Remote assistance - Licence

The provider logs on to the machine screen and sees what the operator sees.

It can thus control the machine, with the operator's authorisation, in order to assist him in solving problems or in optimising its use.

The gains in problem resolution time are significant and therefore lead to substantial savings.

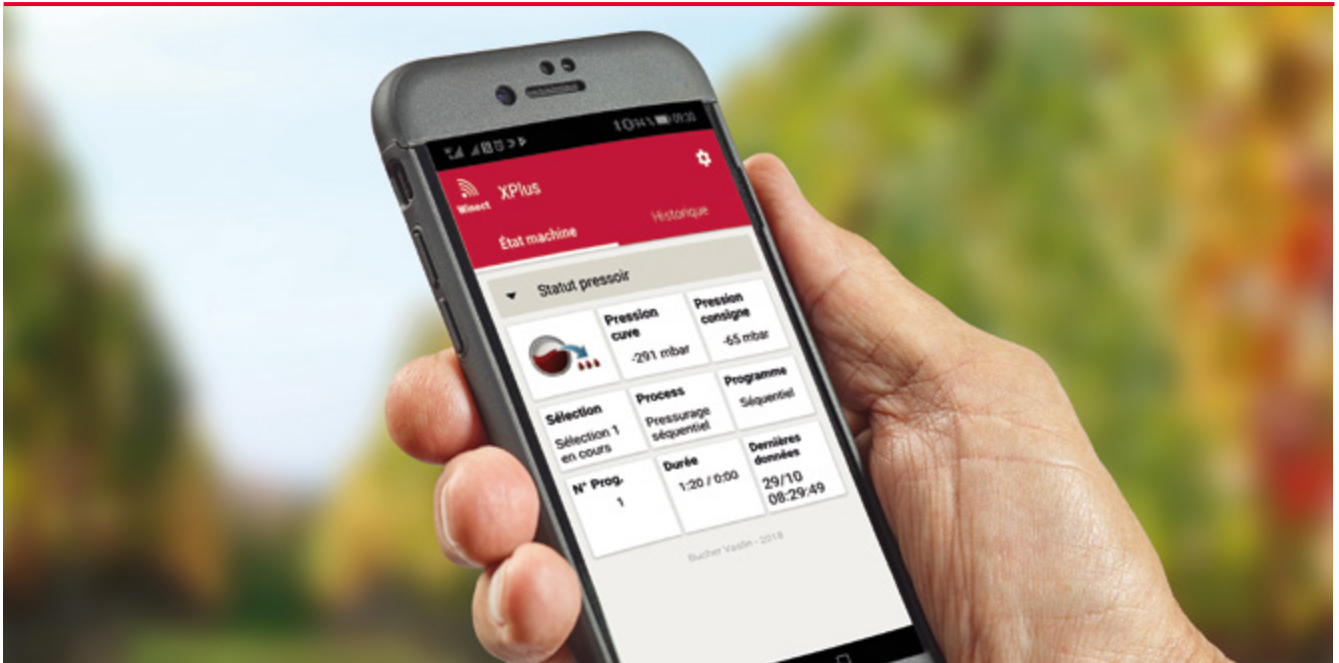


Alerts feature

This feature allows mobile alerts to be received from the machines. The operator is therefore freed up to focus on other tasks.

These can be configured according to individual needs and expectations.

Winect application

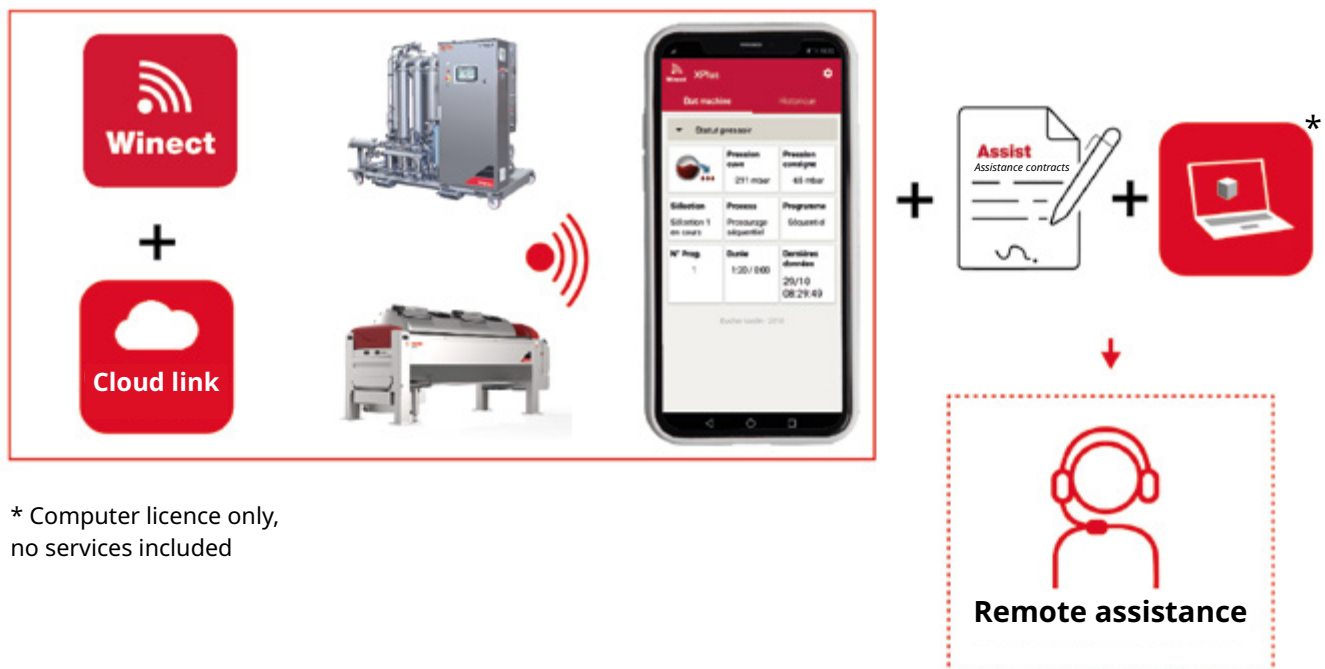


The mobile application that allows you to monitor your machine remotely.

Wherever you are, you can consult the progress of your production, receive alerts in real time and control your machine remotely.

The application is available on iOS and Android.

Leave the winery with peace of mind, Winect will be in your pocket.



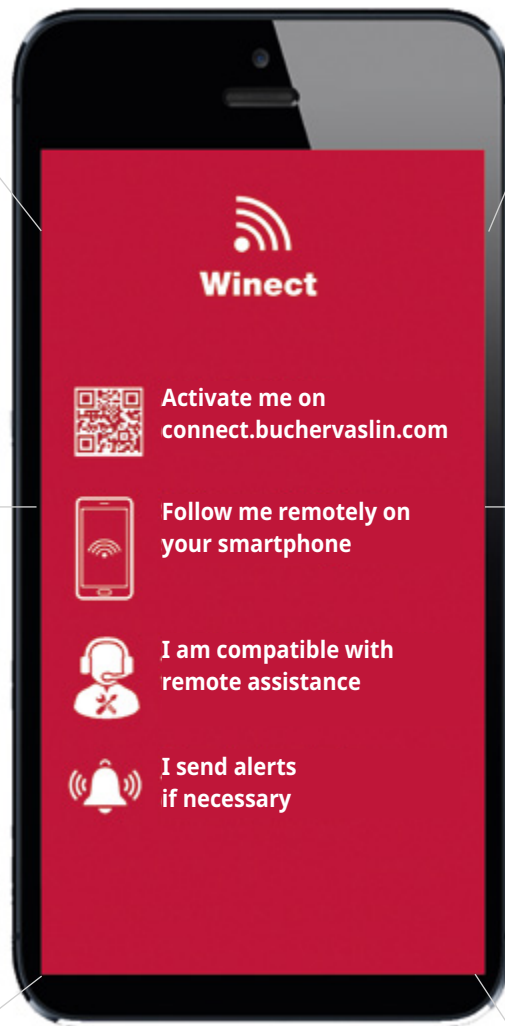
* Computer licence only,
no services included

Public concerned

Customers with a connected machine who wish to monitor and/or control it remotely.

Description

The Winect application contains comprehensive information allowing the user to monitor the process and fine-tune the machine's settings according to their needs.
Reception of alerts included.

**Benefits**

Compatible with all iOS and Android smartphones.
The application saves a great deal of time and travel, as the operator is no longer required to travel to work on his machine.

Features

- Remote machine control
- Remote machine settings control
- Alerts via email and SMS

Prerequisites

Connection to the Cloud

Products concerned

Flavy FGC
Flavy X-Wine and X-Treme
Flavy FX 2-10 ICS
Retrofits compatible

Note



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