



VINPILOT<sup>®</sup>  
FERMENTATION CONTROL  
THE SECRET OF PERFECT RESULTS

# WFT WINETECHNOLOGY

## WHAT WE OFFER



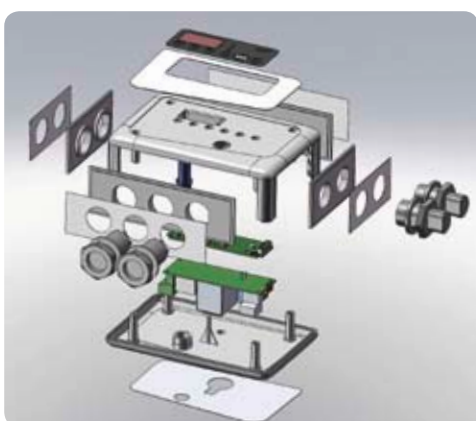
It is our main goal to provide a technological advantage and therefore a competitive edge for our clients. Our oenological know-how as well as our long experience in this field consistently enable us to increase our advance and to set new trends. Thereby the satisfaction and success of our customers is our biggest wish – because only they ensure a successful future for our company.

- **WE SET TRENDS BY INNOVATIVE PRODUCTS AND TECHNOLOGIES**
- **WE DEVELOP CONTROL SYSTEMS AND CUSTOMIZED SOFTWARE**
- **WE OFFER THE MOST MODERN FERMENTATION CONTROL WORLDWIDE**
- **... AND ADEQUATE SERVICE**



## INTERNATIONAL ACTIVITIES

Because of our technological advances we could attain market leadership in German-speaking countries over the past years and further the expansion in Europe. International interest was aroused by the new generation VinPilot®Profi control systems and our modern software, so we managed to break into the market of several wine countries. Amongst others the first plants in South Africa were put into operation 2009. Within the next years our aim will be to extend our lead, which we have established by consistent work in research and development, and to force our international activities.



## RESEARCH AND DEVELOPMENT

Worldwide, hundreds of satisfied customers benefit from the fast implementation of new ideas into our products. The development of our new BUS-series VinPilot®Profi represents thereby one of our milestones. Our work in research and development is focused on finding trendsetting and innovative solutions. Therefore we are also in contact with research and training centers. For exceptional demands we develop specialized solutions, e.g. a microvinification system with a PC-controlled fermentation process and fully automated cooling- and heating plants in demi-johns which was constructed for the regional test winery located in Retz, Lower Austria.



With a new system, which controls the temperature according to the rate of fermentation and the development of micro- macro oxygenation technology, we managed to take significant steps forward in recent years. We pride ourselves in thinking in a future oriented way to stimulate the market with revolutionary new products.



# VINPILOT® CONTROL SYSTEMS

## SAFE AND PERFECT THROUGH THE PROCESS OF FERMENTATION

These days, temperature control during the fermentation process is by far not the only thing that is expected from a control system in a wine cellar. We have developed a range of high quality professional products that vary from modern computer-assisted BUS-systems, modular control cabinet solutions, to mobile single tank solutions. Our product-series “VinPilot®” and “VinPilot®Profi” allow finding a suitable control system for every demand.

Modern and easy-to-handle software enables VinPilot®Profi to bridge the gap between “traditional” and modern cellar management. Our work in research and development is focused on finding trendsetting and innovative solutions. Due to this we were able to set new trends in the field of controlled fermentation and control technology.



## RAZVAN MACICI

*“As we are one of the most renowned wine cellars in South Africa, it is important for us to steadily increase our quality. Thereby the control during fermentation as well as the process documentation and the traceability plays a vital role in the process.”*

*The advanced BUS-technology and the sophisticated software perfectly suit our requirements and convinced us of VinPilot®Profi.”*

Razvan Macici - Cellarmaster  
Tiriro Masyiti - Whitewinemaker  
Nederburg - South Africa

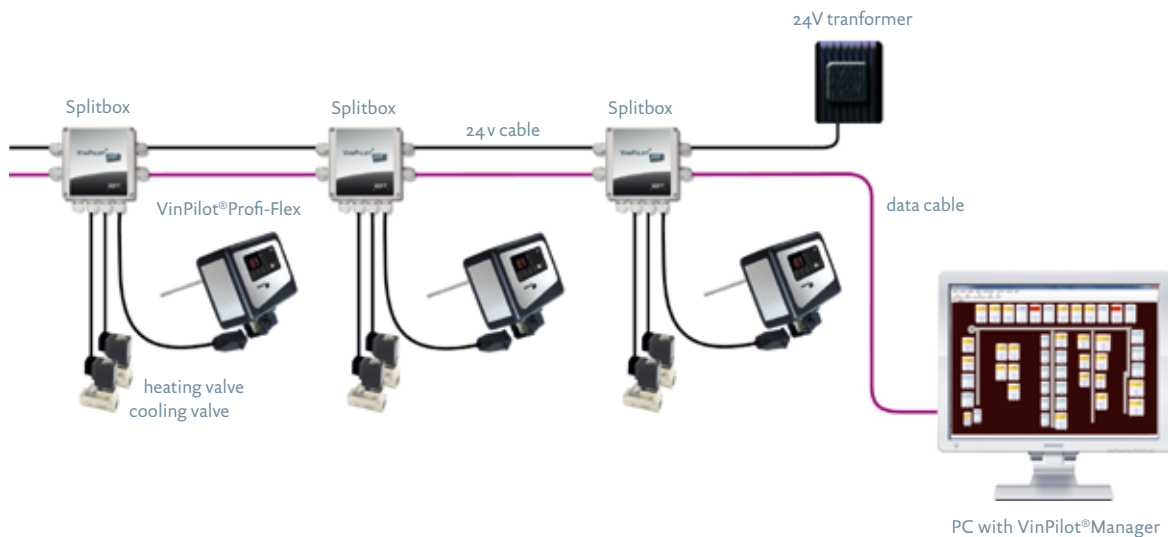
# VINPILOT® profi flex

Our new VinPilot®Profi product line combines not only proven technology with a modern design it is also easy to use and ensures more operating reliability. The newly developed, water proof housing makes it possible to apply the controller, which is connected to a PC, with an integrated display and a modern membrane keyboard. The VinPilot®Profi-Flex is the “flagship product” of the new series. It combines an up-to-date software connection with the possibility to take action locally and change the temperature setting directly at the tank.

The VinPilot®Profi-Flex is plugged right into the sleeve of the temperature sensor. A special snap-in adaptor ensures fastening and allows for quick change.



VinPilot®Profi-Flex fermentation temperature controller



## YOUR BENEFIT

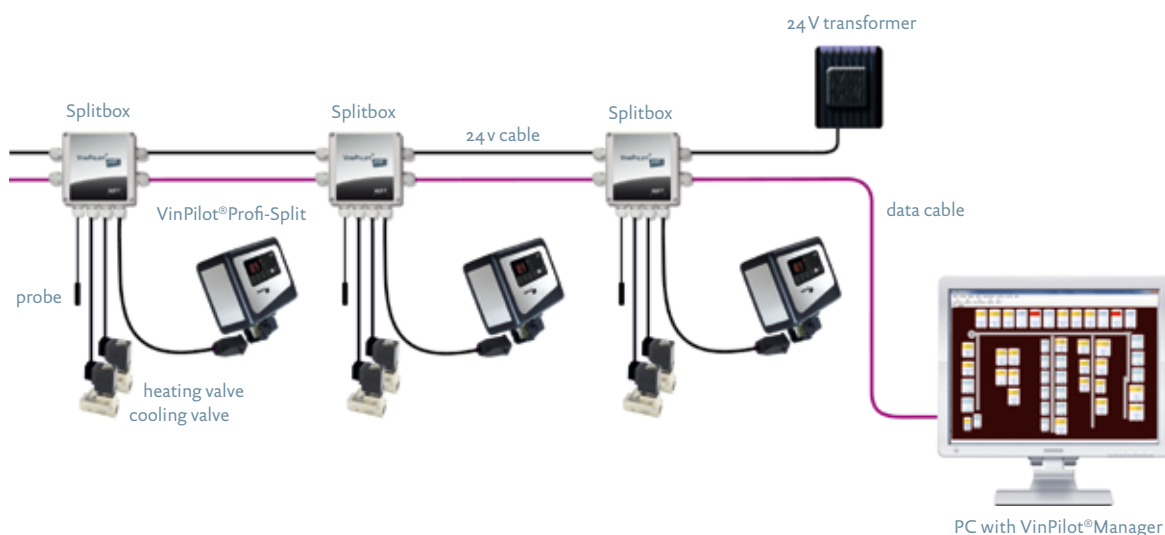
- Perfect fermentation control
- Information at the push of a button
- Input via PC or directly at the tank

# VINPILOT® profi split

Similar to VinPilot®Profi-Flex, the split type controller is also attached directly to the tank via the snap-in adaptor or is mounted between the tanks. However, the sensor is connected to the VinPilot®Profi “split box” and is installed at the back of the tank via a sensor sleeve. A water proof connector system joins the control system with the “split box” and therefore also with the computer. The displays for the temperature and the mode of function show the most important information directly at the the fermenter and the fermentation process can be influenced if needed easily and directly by using the water proof membrane keyboard. The possibility of using additional functions like the fermentation according to CO<sub>2</sub>, the micro-macro oxygenation or a cycle control is part of the functional range as is for all other types of VinPilot®Profi.



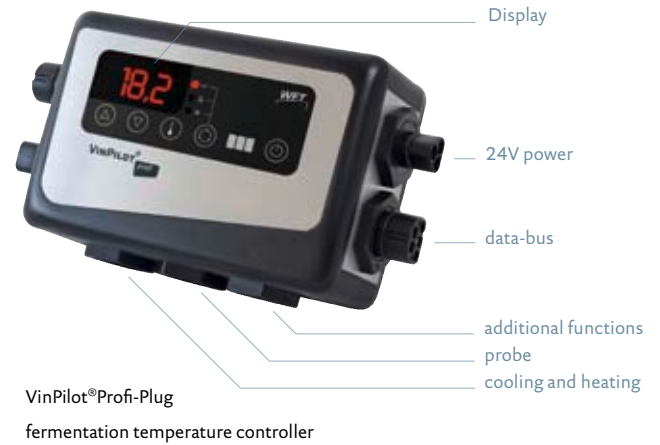
VinPilot®Profi-Split fermentation temperature controller





Additional to the regulation and recording via PC, it is also possible with the VinPilot®Profi-Plug to adjust the temperature directly at the controller.

In contrast to Profi Split and Flex, the VinPilot®Profi-Plug is mounted behind or above the tank and therefore no “split box” is needed. Particularly if the change of temperature via the controller should be the exceptional case or if it is possible due to the mounting set up to access the controller directly, the “Plug” is the best choice. This type is unique in that the connection can be made via a water proof connector system. This allows for easy mounting and high flexibility.



## YOUR BENEFIT

- Perfect control of fermentation
- Any enter via PC or directly in the cellar
- Easy mounting due to plug-and-play connector system





# VINPILOT<sup>®</sup> profi

Our product-series VinPilot<sup>®</sup>Profi which has been established for a few years represents the basis of our software-connected fermentation control systems and can be combined with all new control systems.

Using the VinPilot<sup>®</sup>Profi the control unit is located in a so-called “black box”. This means that all adjustments are made via the software. Depending on the type, different special features can be applied which may be combined with our new generation controllers to an overarching system.

To guarantee the operating reliability, each station has its own, fully functional temperature controller. This ensures that even if the PC should break down, the regulation is continued with the temperature as set.



Depending on the desired level of automation there are different types of the basic VinPilot<sup>®</sup> products available:

Features	VinPilot <sup>®</sup> Profi	VinPilot <sup>®</sup> Profi+	VinPilot <sup>®</sup> Easy
Cooling	✓	✓	✓
Heating	✓	✓	with cooling valve
Temperature measurement	✓	✓	✓
Additional switching contact 1	✓	✓	
Additional switching contact 2		✓	
Input 4–20mA - (e.g. CO <sub>2</sub> , humidity...)	✓	✓	
Input digital (z.B. foam sensor)	✓	✓	

# VINPILOT® panel



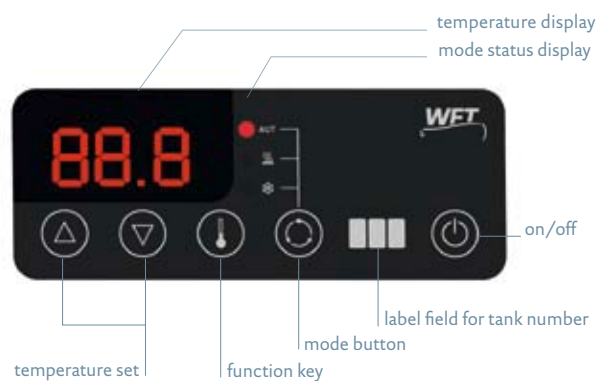
Using VinPilot® Profi Panel you set up a modern control center in your cellar where you always have an overview. A strong cost/performance ratio combined with a high operating reliability and easy handling was the principal aim during the development of the VinPilot® control cabinet.

The fermentation temperature controller VinPilot® guides your wine through the fermentation, controls acid degradation and guarantees an optimal storing temperature. As cooling, heating, or automatic modes are standard you have all necessary functions ready to use.

The menu navigation is set up in a logical and easy to handle way. A clear display permanently informs you about the status of your VinPilot®.

Even in case of power failure your adjustments will be stored and the VinPilot® will continue its work after the interruption. If the temperature should differ from the specified value, the

controller will give an alarm. VinPilot® communicates with its environment. A serial 2-way pump control which is integrated into the control box operates either the cold or warm water pump – depending on what is required. (Pump control is regulated by a BUS controller for types with a software connection.) There are various sizes of the cabinet (10, 20, 30, 40 – cabinet) which allow you to invest in future expansion. The modular system enables you to implement your cabinet to suit your requirements and to expand it easily whenever you want to.



# VINPILOT® profi panel

The VinPilot®-control cabinet is also available as VinPilot®Profi – type. The software-connection allows the handling directly at the cabinet, and also control from a distance.

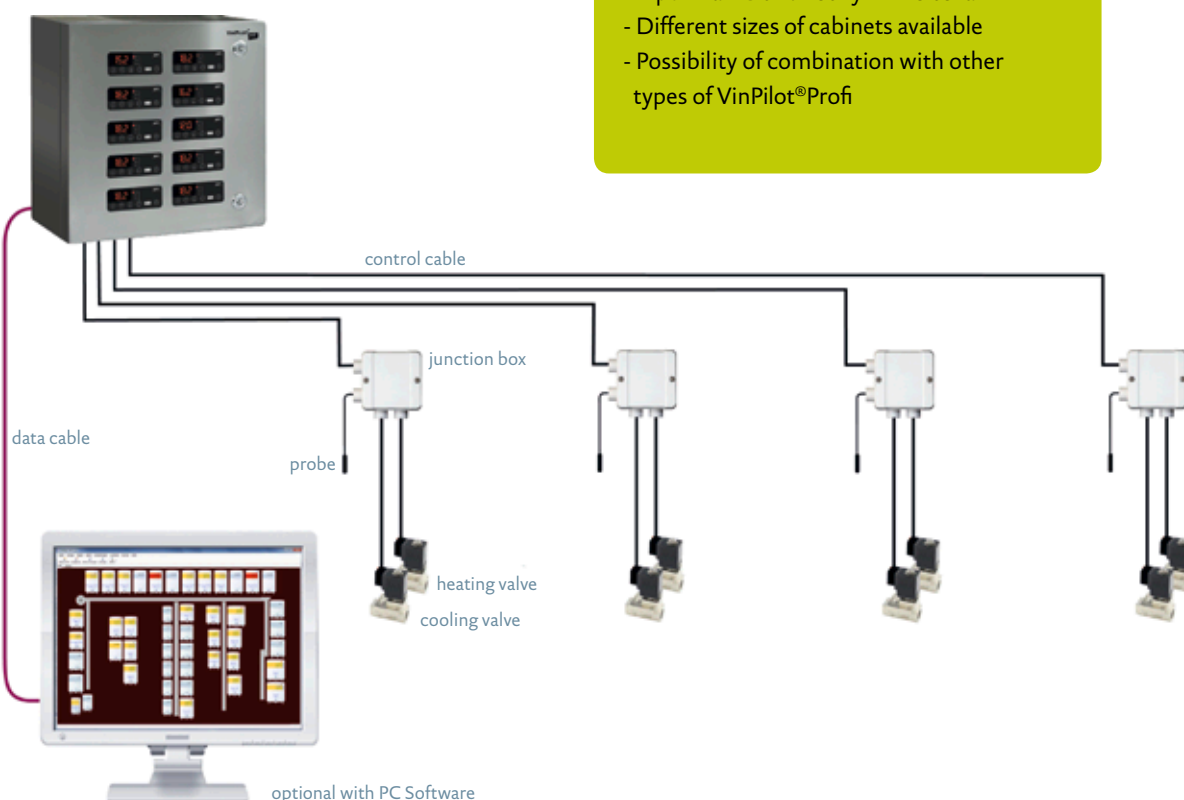
The automated record of the temperature curve by our unique batch management provides the basis for modern cellar management. Additionally the VinPilot®Profi-Panel allows the connection of specialized features like fermentation according to CO<sub>2</sub>, micro- macro oxygenation as well as automated timing for the pump-over or your blending device.



SOFTWARE-GESTEUERT (OPTIONAL)

## YOUR BENEFIT

- Easy to handle
- Operating reliability
- Input via PC or directly in the cellar
- Different sizes of cabinets available
- Possibility of combination with other types of VinPilot®Profi

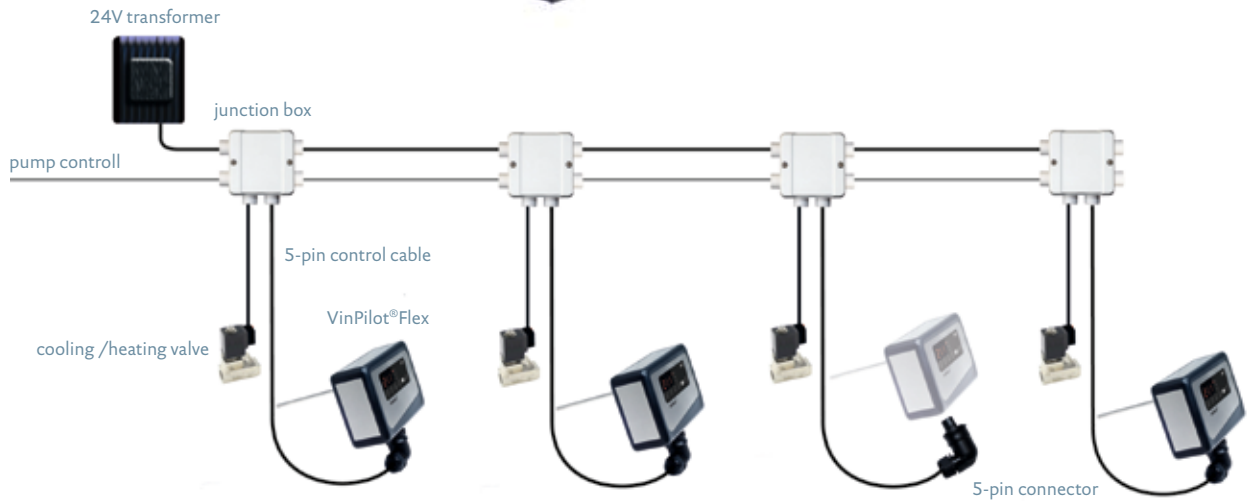


# VINPILOT<sup>®</sup> flex

The VinPilot<sup>®</sup>-Flex belongs to our product line which is operated without any PC-connection. The control system is simply plugged into the sleeve of the temperature sensor. Depending on the manufacturer of the tank, different snap-in adapters are available which ensure a secure fastening and allow a quick change. The regulation can be used either for cooling or for heating. Additionally the unit has a pump control which is in contact with a cooling/heating pump and which uses them in case of requirement. Our established water proof connector system allows using the regulation unit at different tanks.



VinPilot<sup>®</sup>Flex



## YOUR BENEFIT

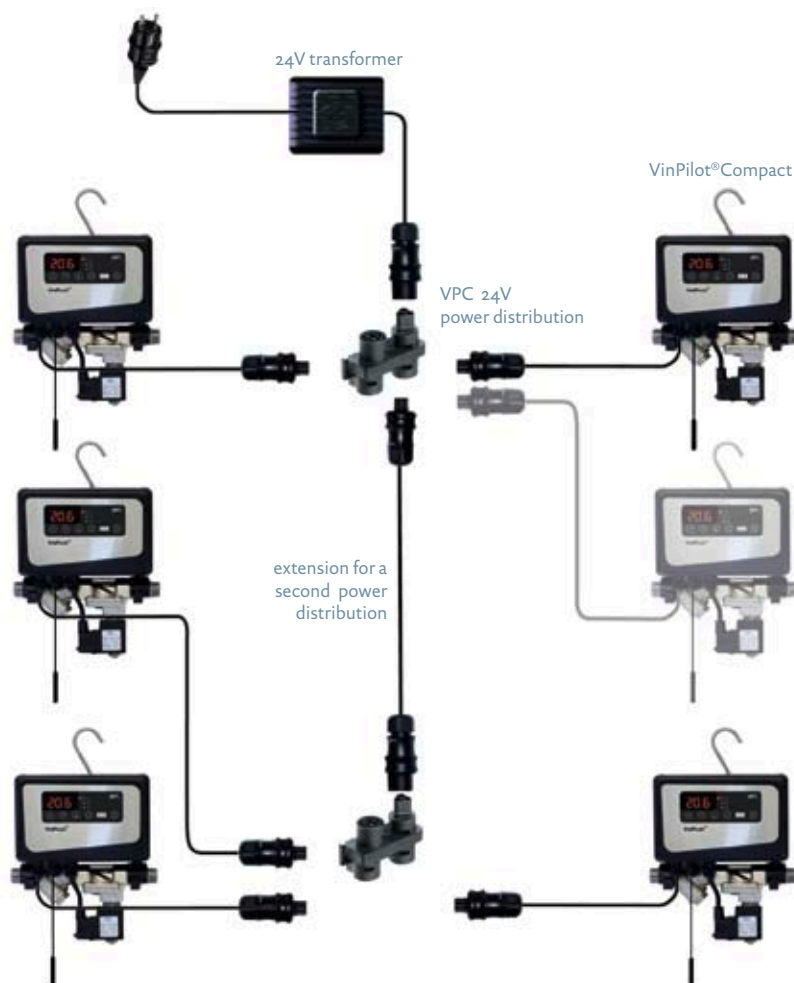
- Low investment costs
- Controlled cooling and heating
- Flexible from tank to tank
- VinPilot<sup>®</sup>Split with pump controll

# VINPILOT<sup>®</sup> compact

With our VinPilot<sup>®</sup>Compact single tank control which was especially developed for small cellars, you enter the league of “cooled fermentation” with only minimal financial input. Whether used for cooled fermentation or the control of biological acid degradation – the single cabinet control allows you peace of mind. Certainly safety plays an important role for you. Therefore our VinPilot<sup>®</sup>Compact is designed on a 24V basis. Provided with a transformer and due to the professional distribution system you can control up to five tanks. In our newly designed housing the VinPilot<sup>®</sup> fits in perfectly due to the retral installation and is fully protected against splashes.



VinPilot<sup>®</sup>Compact  
single tank controller



Three VinPilot<sup>®</sup>Compact units are connected to the transformer via a distribution box. You can connect up to five controllers with the transformer via a 6m lengthening piece and a second distributor. All control systems have a standard a nickel-plated solenoid valve with a strainer and are provided together with a 6m sensor as well as with a water proof system connector on a 6m wire lead.

## KLOSTERNEUBURG MONASTERY

*“As we are one of the oldest vineyards in Austria awareness for tradition is part of our philosophy just as the utilization of the latest wine technology. Therefore we have been working with VinPilot®Profi since 2007. Besides a fermentation process which can be controlled perfectly, the VinPilot®manager software is also a tool which allows us to draw upon our experiences at any time and to manage our wines efficiently until they are bottled.”*

Ing. Christian Schmidt, Cellarmaster  
Klosterneuburg Monastery Winery



# VINPILOT® SOFTWARE

PROCESS DOKUMENTATION WITH VINPILOT® *manager*

At the beginning perfect control during fermentation was the main objective in our software-development. These days, an entire cellar management program is available for the oenologist using the VinPilot®Profi-Manager. In addition to storing the fermentation and sugar curves, all relocations, blends and other treatments can be documented via a mouse click.

Using VinPilot®Manager you can manage the entire traceability of production steps and with the documentation according to legal requirements in an easy and fast way.

As you are overworked during the season, you will not only appreciate the extensive functions, but also the extremely easy handling. VinPilot®Manager is continuously extended and improved in collaboration with our customers.

Due to this ongoing exchange of ideas and the fast implementation in our software we provide our customers with the necessary advance which is needed by successful businesses.



## YOUR BENEFIT

- Perfect temperature control and record
- Documentation of all of your processing steps
- Make any entry via PC or directly in the cellar
- Steadily expanding software which is oriented on the needs of time



## VINPILOT® MANAGER SOFTWARE

The VinPilot®manager software has all necessary functions for the temperature control as well as for the management of wines. Latest technology is combined with a clear and structured graphical display which assures user-friendly handling. Just a few steps are needed to set up your cellar within the VinPilot®Manager.

The representation is true to original and allows a good overview. Independent from the fermentation control any amount of tanks and cellars can be created. The stored wines can be managed until they are bottled. The handling can be carried out via PC or directly in the cellar by using the touch-screen.

With the new network version allows that different users with different rights (can be set by an administrator) work on the same time in the system.

## REGULATION

- Regulation due to a fixed temperature setting
- Temperature control due to a pre-set temperature-curve
- Fermentation according to sugar consumption (via CO<sub>2</sub>)
- Cycle control (e.g. for automated pump-over)
- Control of micro-macro oxygenation
- Climate control in your cellar (temperature and humidity)

## ADMINISTRATION

- Record of the providers of your grapes
- Management of blends
- Chronicle about wine movements (e.g. racking)
- Documentation about all treatments of the wine
- Record of all analysis of a specified batch
- Batch management for traceability
- All data relevant for a batch can be printed
- Exportable batch lists

## PLANNED MODULES IN 2010

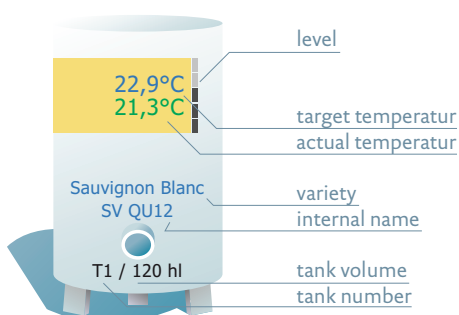
- Full network possibility
- Register of agents for wine treatment and venders for an even more simplified administration and traceability



## CELLAR VIEW

Using the cellar-layout you quickly get an overview of all tanks. All important information is evident immediately because it is shown in the graphic representation of the tanks.

With a mouse click on a "tank" a separate window for the batch is opened into which the entries are made and where the fermentation can be started.



## VINPILOT® CONTROL FUNCTIONS

The mature regulation-technology of VinPilot® fermentation controls, combined with the VinPilot®Manager offers you large possibilities for controlling. In addition to several alternatives of fermentation, VinPilot®Prof enables you to control red wine processes, the cellar climate and the micro-macro oxygenation as well as your refrigerating machine. Other future processes can be integrated.

## EASY AND COMPLETE DOCUMENTATION

In addition to fermentation and sugar curves, all relocations and treatments are documented via a mouse click. Moreover, blends and the distribution of wine into several tanks are done within a few, easy steps and automatically recorded.

The clear process and batch management enables you to go back to stored data and curves at any time. In the overviews of the batches you can recall all wines and the connected processes. Search boxes support the user in finding wines even after a longer time period.

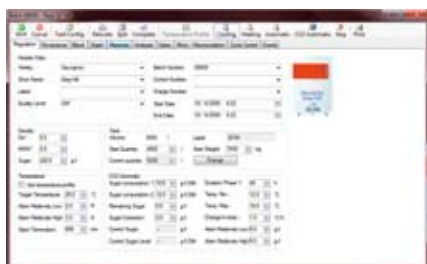
Complete and clear reports of the batches as well as the fermentation curves can be printed via the integrated print-module. Additionally the export of single batch records up to entire overviews of the cellar is easily achieved.

## A GLANCE INTO THE FUTURE

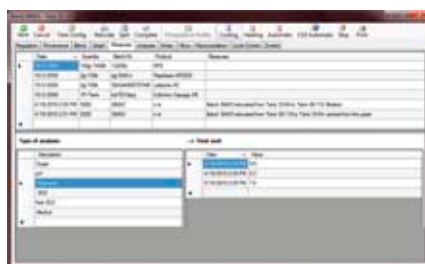
The direct communication with our customers helped us to create the VinPilot®Manager which is very user-friendly and custom-tailored for wineries. This process will be continued in the future. We work steadily to offer you new possibilities with intelligent applications, so that you will be able to organize your work in an even more efficient way.

Just to mention some points, we will provide full network possibilities within the next update and integrate the administration and traceability of the used agents.

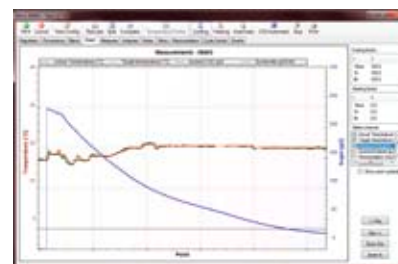
## VINPILOT® manager



Modern batch-administration for a complete record and easy traceability



Complete documentation of the actions, blends and analyses



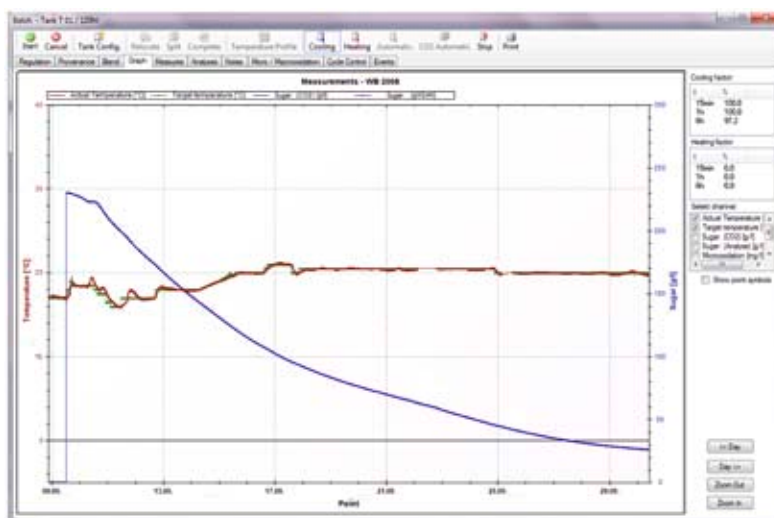
Pre-set fermentation curves and record for perfect temperature control and documentation

# THE INTELLIGENT FERMENTATION

## FERMENTATION ACCORDING TO THE SUGAR CONSUMPTION

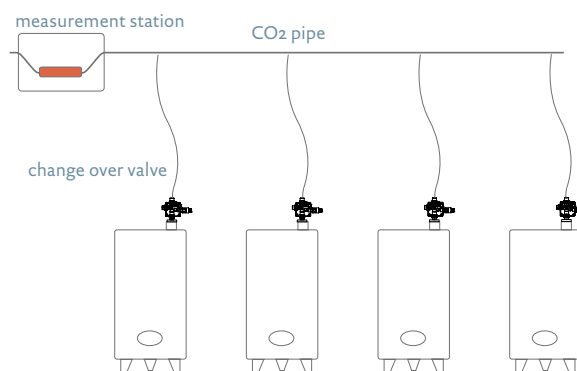
Already the possibility of fermenting due to pre-set temperature-curves and to record them is an interesting feature. However, every oenologist has always wished to have a fermentation control depending on decreasing density or on the sugar level. During the past years we have developed an easy but accurate principle and combined it with professional software into a system ready for use.

With fermentation according to  $\text{CO}_2$  the temperature is adjusted automatically in dependence on the fermentation velocity. If the required fermentation rate is not reached, the system gives an alarm and adequate actions can be taken to prevent a stop of fermentation. This leads to a very gentle fermentation and moreover offers the possibility to ferment also at low temperatures without any risk.



The graph visualizes how the system is adapting the temperature to obtain a constant fermentation rate.

By measuring the escaping quantity of  $\text{CO}_2$  the amount of the already fermented sugar can be calculated. One gauging station for  $\text{CO}_2$  is applied for a whole group of tanks. Approximately every 10 minutes the escaping quantity of  $\text{CO}_2$  is measured and the rate of sugar-degradation is calculated. Our new  $\text{CO}_2$ -switching valves which are mounted directly on the tank are flexible and can be used at those tanks where fermentation is currently running.



# MICRO AND MACROOXYGENATION

## FOR A PERFECT COMPLEX OF COLOUR AND TANNING AGENT

For a perfect complex of colour and tanning agent Micro-macro oxygenation is one of the most interesting developments of modern oenology. The term means a smoothly regulated addition of pure oxygen to must or wine.

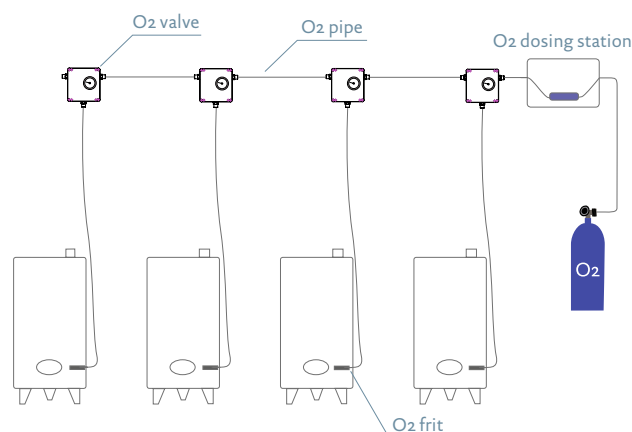
The macro oxygenation supports the growth of yeast and the stabilization of the colour (by binding of anthocyanes to polyphenoles). At the micro oxidation, which in contrary to the macro oxygenation is only used for wine, considerably fewer amounts of oxygen dosages are applied over a longer time period.

In addition to the stabilization of the colour, the wines become well-balanced due to the polymerization of phenols. The wines

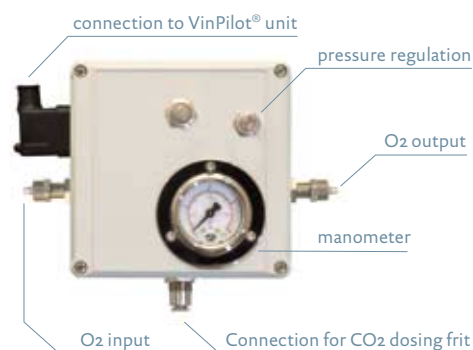
can be drunk earlier and as the tannin is not removed, this action does not affect shelf life.

Our system works with one dosage station for a group of tanks. VinPilot®Manager provides the tanks in several rounds one by one with small - "in mole-range"- dosages. This is repeated until the calculated daily dosage is reached.

The investment costs are strongly reduced by our procedure and therefore this interesting technology is accessible for a higher number of wine growers.



The O<sub>2</sub> valves are mounted at the tanks in a serial connection with a dosage station. The assigned VinPilot®Controller releases a mini-dosages, calculated by the software, into the tank. A pressure controller takes care of the right size of bubbles.



# COMPLETE SOLUTIONS BY WFT

## EXPERTISE IN ALL AREAS OF WINE-COOLING

We are your contact in all areas concerning process-cooling in wineries. Our delivery program includes the entire range of products accompanying cooling. With over 15 years of experience we plan, deliver, install and provide complete systems ready to use.

### YOUR BENEFIT

- All from a single source
- Competence in all areas
- A contact for your project
- A partner with long lasting experience

- CONTROLLED FERMENTATION SYSTEMS
- COOLING PLANTS
- COOLING PANELS
- CLIMATISATION
- FLEXIBLE COOLING TUBE
- PLATE HEAT EXCHANGER
- TUBULAR HEAT EXCHANGER
- INSTALLATION MATERIAL
- PLANING AND INSTALLATION

**WFT** competent think tank  
for winetechnology.

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