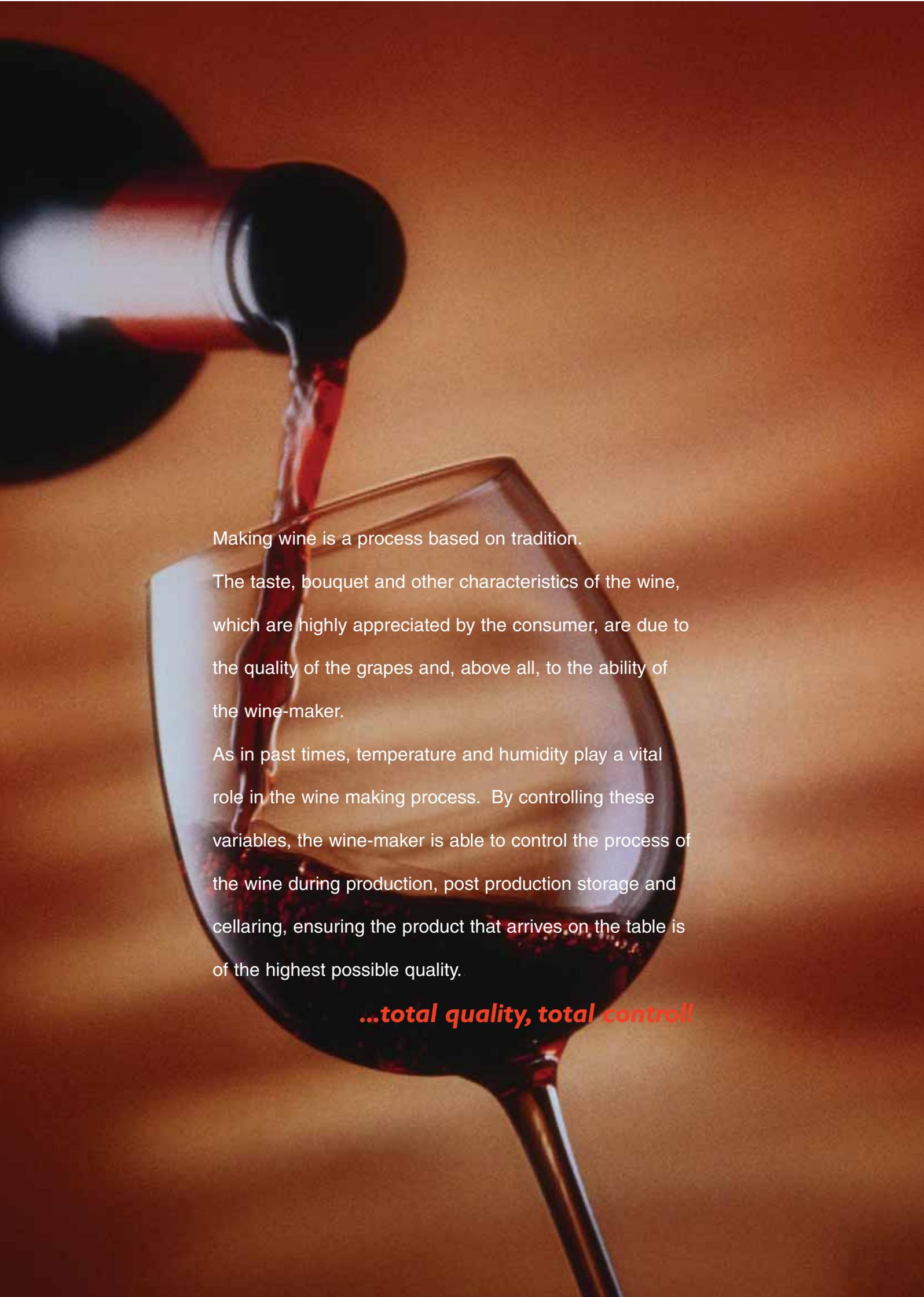


Temperature & Humidity Control Systems for the Wine Industry



CAREL
Technology & Evolution



Making wine is a process based on tradition.

The taste, bouquet and other characteristics of the wine, which are highly appreciated by the consumer, are due to the quality of the grapes and, above all, to the ability of the wine-maker.

As in past times, temperature and humidity play a vital role in the wine making process. By controlling these variables, the wine-maker is able to control the process of the wine during production, post production storage and cellaring, ensuring the product that arrives on the table is of the highest possible quality.

...total quality, total control!



Carel Solutions for the Wine Industry



Carel's position as one of the world's leading manufacturers of Refrigeration and Air-Conditioning Controls and Humidification equipment makes it an ideal partner to the Wine Industry. With a comprehensive range of standard and custom solutions, Carel is able to meet the future challenges of the wine industry with confidence, providing global technical support through the Carel network of Subsidiaries and Agents.

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Frost Protection

The IR32 Series provides a variety of networkable stand-alone controllers for a reliable frost detection system. With a choice of numerous outputs, various stages of alarm conditions can be indicated. The Vineyard management has the ability to receive a warning followed by a critical situation alarm. The waterproof sensor can be mounted up to 100 meters (328 feet) away offering flexibility in installation. The capability of a wide range of power supplies (12-24Vac-dc / 230Vac) enables the controller to be used in multiple situations. Through the Carel supervisory network, a fax, auto-dialer or SMS message to a cell phone can inform the user of a critical situation.

Local Monitoring – PC Free

For small sites, PlantWatch offers a PC free supervisory solution. PlantWatch connects up to 32 Carel serial compatible controllers and will not only log the measured values of each controller, but will manage alarms in critical situations. PlantWatch can send messages via SMS, Fax, dialing a remote supervisory PC, or printing a log in the event of an alarm.



Chiller

Thanks to Carel's thirty years experience in chiller technology, pCO² is the ideal solution for managing the temperature of the secondary refrigerant circuit. With a software developed especially for this application, Carel offers many standard features to maximize both the performance and life of the refrigeration plant. Compressor rotation is an example of this. pCO² also offers full alarm management of the chiller and connection to the Carel supervisory network. Carel controllers can be used together with an Electronic Expansion Valve to maximize performance and simplify the refrigeration circuit by eliminating the need for two traditional thermostatic expansion valves. It also provides energy saving operation under normal and low ambient conditions.

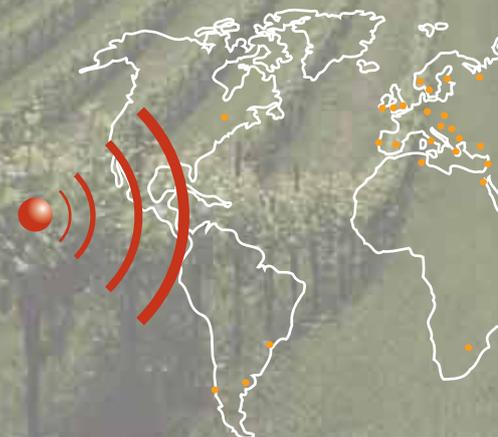


Wine Tanks

The IR32 Series controllers offer a localized display and control of regulating valves for the fermentation tanks. This ensures that process temperature can be visually inspected from the top of the tank. As the controllers can be linked to a PC, this information and alarm status can also be logged and viewed through the Carel Supervisory system.

CO₂ Monitoring

The IR32 Series controllers can be connected to a CO₂ sensor for monitoring and alarm indication in hazardous situations.





Cold Rooms

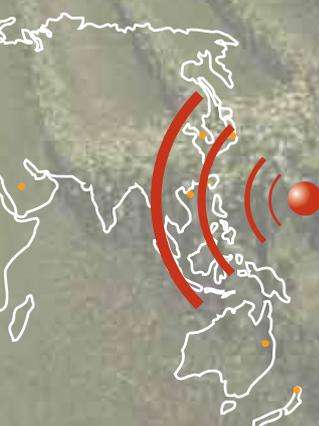
On site, cold rooms are managed using the MasterCella Series controllers for refrigeration. MasterCella offers complete management of the cold room ensuring that the wine quality is maintained once bottled.

A local LED display shows the current temperature and output status of the controller. The MasterCella Series controllers can be connected to the Carel supervisory network for alarm management, logging and telemaintenance.

Barrel Hall

Temperature and humidity in the barrel storage hall can be maintained using a combination of various controllers, depending on requirements. Carel has a wide range of humidification products to select from, all designed for long life and high reliability. Our products will add moisture where required to reduce product losses due to evaporation (the Angel's Portion).

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Local & Remote Monitoring – PC Based

PlantVisor is the latest Carel Supervisory software product. A PC based solution for local or remote monitoring of the

individual sites, PlantVisor allows the user to view logged variable trends, change individual set temperatures and also manage alarms. Like PlantWach, PlantVisor can send messages via SMS, Fax, dialing a remote supervisory PC or print a log in the event of an alarm. Remote access to the local supervisory system is also possible using the PlantVisor remote software, allowing the user to review logs, alarm reports and even change control parameters where authorized.



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