FOCUSED ON PERFECTION FROM GRAPE TO GLASS

Nitrogen and temperature control for the wine industry

Parker

ENGINEERING YOUR SUCCESS.

FOCUSED ON CONSISTENTLY HIGH QUALITY PRODUCTION

The global wine market has never been more competitive, and customer expectations have never been higher. Facing a world of choice, buyers are increasingly turning to familiar brands for the reassurance of consistent quality, taste and affordability.

The challenge for producers is to supply consumers' favorite wines at the volume and cost required, whilst ensuring that taste, character and enjoyment remain undiluted.

Success is dependent on a blend of traditional skills, innovative techniques and experience. It's about cherishing the best of the old methods as well as embracing effective new approaches.

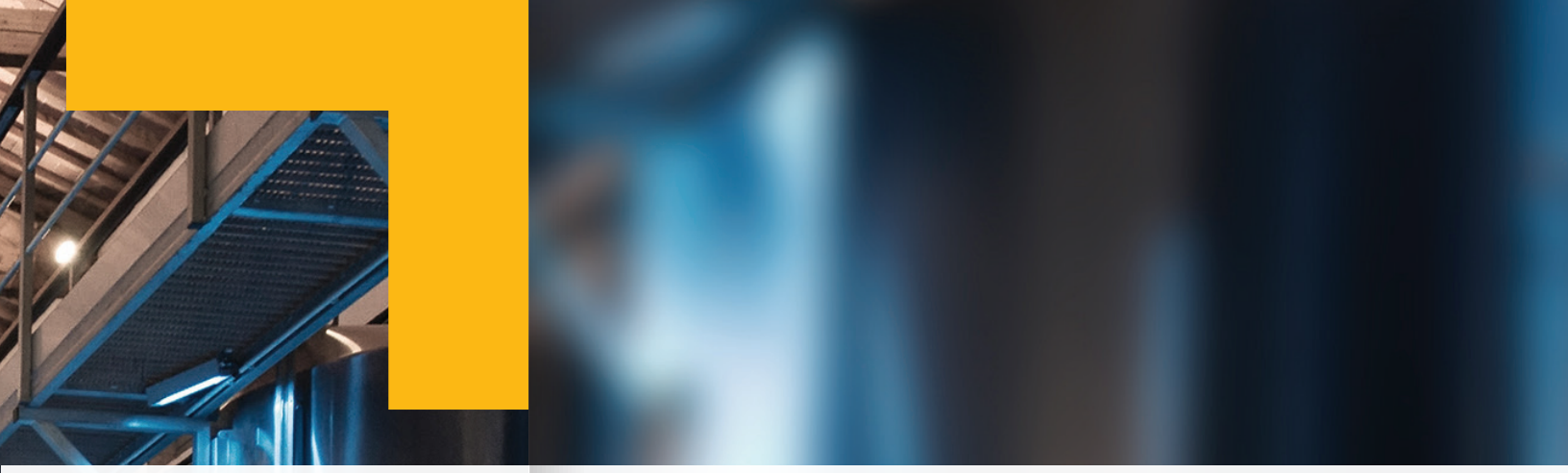
The complete solution for wine making

In the 21st century, industrial gases such as nitrogen, and mechanized temperature control are integral elements in large scale production. And by working with the right partners, producers can operate more effectively, while ensuring the purity and integrity of their wine.

Bringing together world-class technology with real-world experience, Parker offers a range of technically advanced, energy efficient and reliable solutions for the wine making industry. They include NITROSource, the world's most energy efficient on-site nitrogen generators; Hyperchill Plus, the advanced range of industrial process chillers, plus our range of sterile-air filtration solutions.

"In today's market, customers have come to expect enjoyable, reliable wine at a sensible price"

Wine producer, South Africa



FOCUSED ON NITROGEN

From fermentation to bottling, nitrogen has an important role to play in modern wine-making. On-site generation provides a reliable source of nitrogen at the lowest total cost available.

Integrated into a nitrogen generating skid, the NITROSource nitrogen gas generator range from Parker provides maximum cost-effectiveness, guaranteed availability and has the most energy-efficient technology at its core.

Fermentation and pigeage

Whereas manual pigeage is reliant on skilled operation for good results, the addition of nitrogen to fermenting vats ensures a less time-consuming process and a more consistent outcome.

Sparging

NITROSource provides the consistent flow rates required for effective removal of dissolved oxygen, accurate adjustment of carbon dioxide, and the prevention of oxidization after bottling.

Tank blanketing

The introduction of nitrogen to the headspace of processing and storage tanks is a highly effective way of preventing oxidation and protecting against spoilage by yeast and bacteria.

Pressure transfer

High pressure nitrogen is applied to the headspace of storage tanks to enable more effective transfer, and provide an oxygen-free environment during transportation.

Purging

Purging with high-purity nitrogen reduces oxygen levels and harmful microbiological activity within equipment and pipelines.

Wine mixing

Nitrogen provides a highly effective alternative to mechanical stirring, which requires thorough and regular sterilization.

Bottle flushing

Bottle flushing with nitrogen purges oxygen prior to filling, and reduces water usage, making it a much more effective treatment than sterilization alone.

Bottle filling

Oxygen pick-up from entrained air is a significant problem during the bottling process. Purging with nitrogen eliminates the risk of oxidative degradation in the wine. NITROSource is effective in both bottling plants and as an reliable source of nitrogen for wine bottling trucks.

On-site gas mixing

CO_2 purifiers can be integrated with NITROSource, ensuring a consistent supply of good quality carbon dioxide – essential to prevent the wine from becoming flat, and to add the all-important bouquet.

FOCUSED ON MORE PROFITABLE SOLUTIONS

NITROSource: Continuous nitrogen supply and ultimate gas reliability

Parker domnick hunter NITROSource is the most effective and economical source of nitrogen for wine production. It provides access to all the gas you need, on demand. The running costs are low and reliability and productivity is unrivalled, thanks to innovative Energy Saving Technology, and low-maintenance engineering.

So you can expect payback within 6 to 24 months* – and after that, tangible savings and a positive contribution towards your profitability. Compare that with traditional supply, where customers are hostage to gas companies' ongoing charges, and liable for 'hidden extra costs' such as cylinder rental, delivery and administration charges.

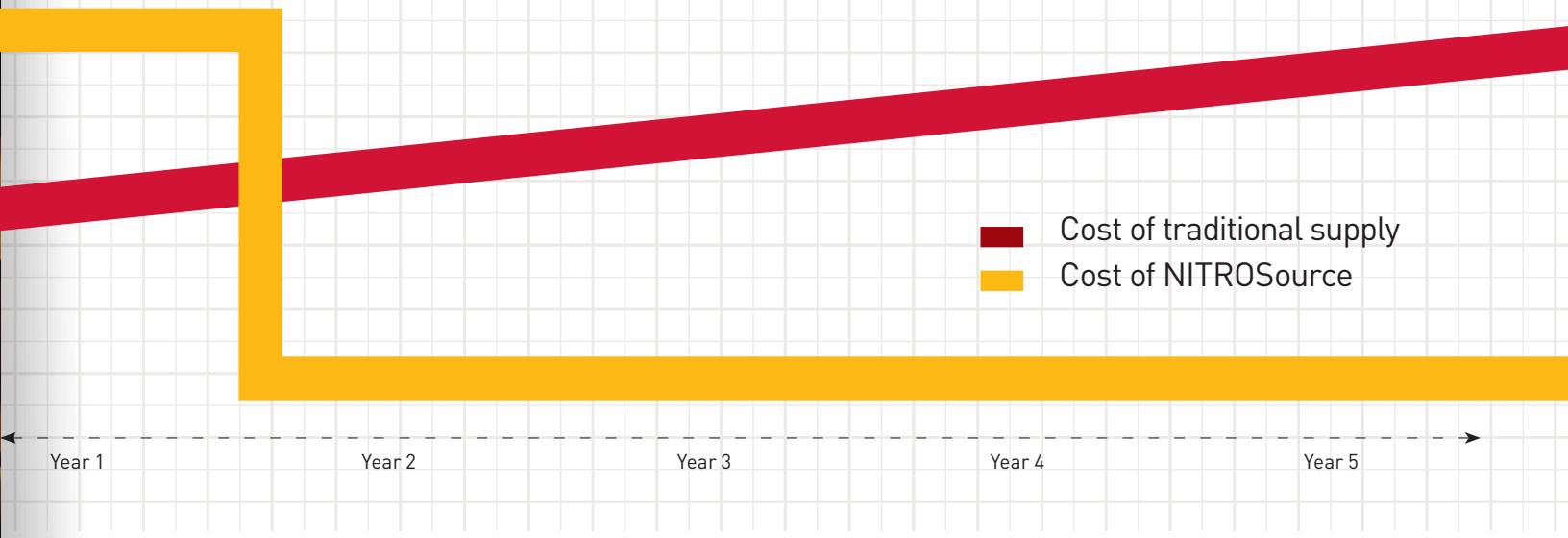
*24 month payback period is dependant on usage and other factors

"Cost control and quality are equally important to us – to produce the wines that our customers want, we can't afford to compromise"

Consorzio member, Italy

The most economical source of nitrogen

When the true costs are accounted for, NITROSource is the most cost effective source of nitrogen.



Engineered for quality

Parker domnick hunter NITROSource offers a host of technically advanced features – designed to give you the assurance of uninterrupted supply, stable gas pressure, consistent flow and guaranteed purity; vital factors in wine production.

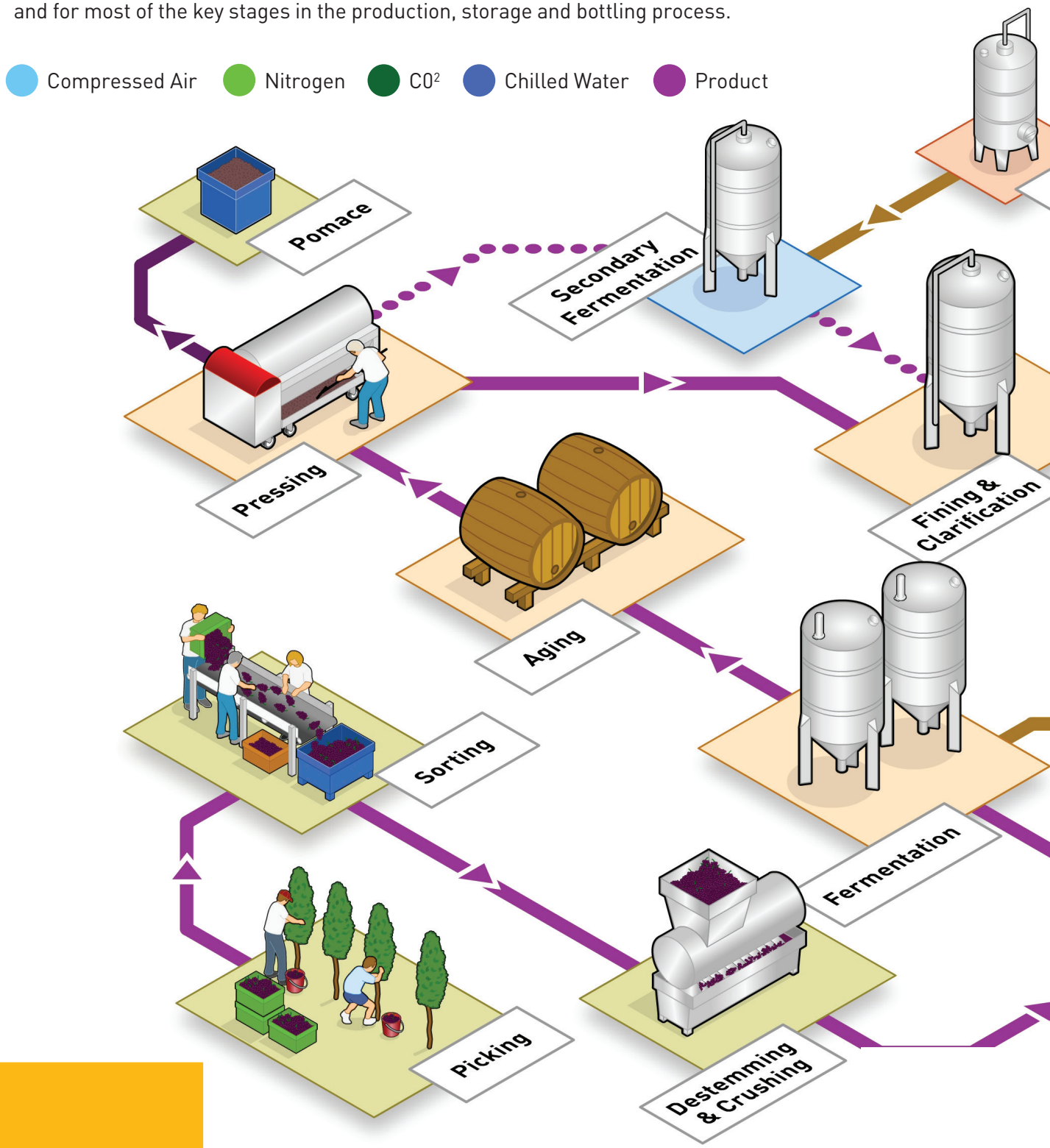
- Mass Flow Controller – whatever happens, the generator will continue to deliver the correct set pressure and flow.
- Integral Oxygen Analyzer – constantly measures the oxygen content in the output gas stream.
- Off-Gas-Bypass – ensures that the correct gas purity is always delivered to the application.
- Inlet and Outlet Pressure Regulation – guarantees maximum operating efficiency and safeguarding wine from damage or spoilage.
- Electronic Control System – offering 100% control of all critical generator functions.

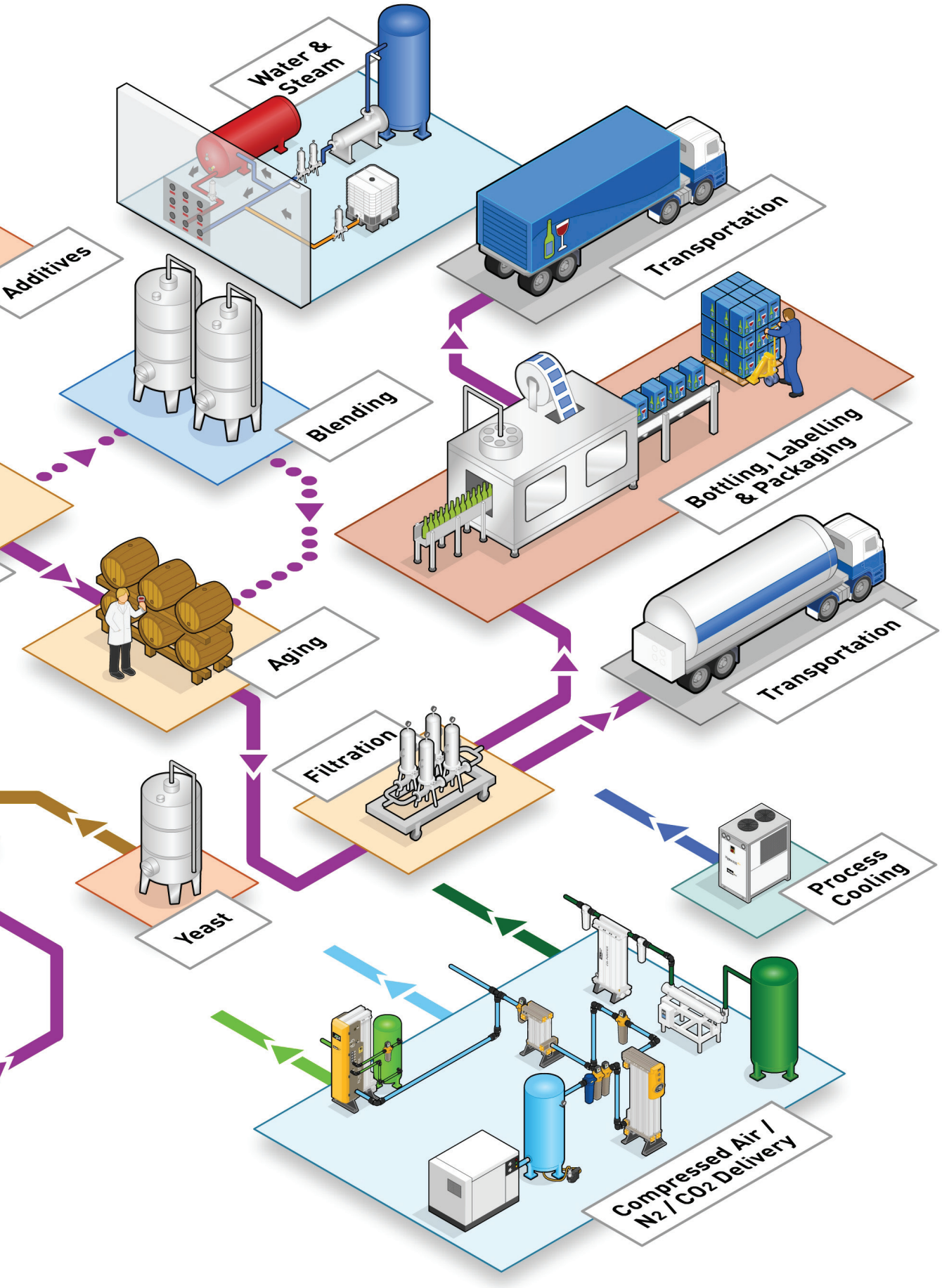
Checked and certified: Safe

NITROSource has independent, third-party food and beverage safety accreditation, to demonstrate full compliance with European statute for food, and pharmaceutical grade gases, as well as the USA Food & Drug Administration (FDA) Article 21; making it a risk-free choice for wine production.

FOCUSED ON THE PROCESS

From Amarone to Zinfandel, Parker provides solutions for every variety of winemaking, and for most of the key stages in the production, storage and bottling process.




Water &
Steam
Additives
Transportation
Blending
Bottling, Labelling
& Packaging
Aging
Transportation
Filtration
Yeast
Process
Cooling
Compressed Air /
N_2 / CO_2 Delivery


Hyperchill plus
Hyperchill plus
Hyperchill plus
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Parker

FOCUSED ON TEMPERATURE CONTROL

Accurate temperature control is a vital factor in successful wine production. Throughout the process, variations outside required heat ranges will impact on overall quality, taste, color and aromatics.

Producers cannot afford to compromise on accuracy. Parker Hyperchill Plus chillers offer high energy efficiency, versatility and extreme reliability, making them an ideal choice for cost effective temperature control in progressive wine making.

Must/cold maceration

The wine 'must' requires immediate chilling, with the maceration process requiring consistent, cool temperatures (typically 3 – 15°C) for ideal quality.

Fermentation

Our chillers do not have a reversible heat pump or heating. This makes them more suitable for areas where ambient temperatures at the start of fermentation are already high enough to start the process.

Red wine

Hyperchill Plus refrigeration systems work with the fermenting tanks to closely control the heat generated by alcoholic fermentation (usually within the 68 – 77°F range). During malolactic fermentation, input of heat is needed – again, extreme accuracy is required.

White wine

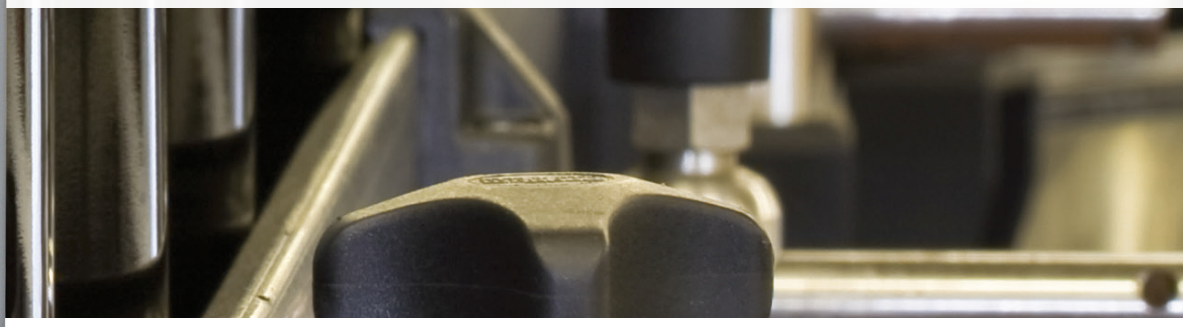
In order to maximize fruity aromas in white wine, it is essential that the fermentation temperature is maintained between 15 and 20 °C.

Cold stabilisation

Accurate chilling is required for elimination of tartrate crystals through the cold stabilizing process. The temperature of the wine is dropped to close to freezing at 28° / 26 °F.

Wine making

Specific processes will vary according to wine makers' preferences and the character of each wine. Hyperchill Plus provides the temperature control and range required for each treatment.




“Accurate temperature control plays a vital role in ensuring the unique taste and character of our wines”
AOC producer, Côtes du Rhône
Hyperchill plus
Parker

FOCUSED ON ACCURACY AND RELIABILITY

Hyperchill Plus: High Performance Process Chillers

Hyperchill Plus is designed to provide precise control of the fluid temperature throughout the wine making process. Compact, easy to use and available with a wide range of accessories - Hyperchill Plus can be integrated with a broad variety of process equipment, vessels, production environments and transportation.

Specified with a non-ferrous hydraulic circuit, Hyperchill Plus ensures stable working conditions with maximum quality and cleanliness of the cooling fluid. Every unit is exhaustively tested prior to shipping and, as a result, wine makers can enjoy maximum productivity, with reduced maintenance costs and downtime. Plus the reassurance that optimum fluid temperatures will be maintained, whatever happens.

Engineered for maximum productivity

Developed with world class engineering from Parker, the Hyperchill Plus range is designed to maximize the benefits that really count: performance, control and economy. A range of innovative features offer outstanding temperature management, energy efficiency and reliability.

- Electronic controls with proprietary software – offering super-precise control, and remote monitoring.
- Completely configurable – enabling the ideal set-up within any wine making process.
- Large water tanks - allowing for minimum compressor cycling and accurate temperature control.
- Oversized condensers and evaporators – helping to deliver the lowest energy consumption in the market, and reduced running costs.
- Multiple compressor set-up, double stand-by water pumps – complete system back-up, reduced down-time and process interruption.

FOCUSED ON PROVIDING A COMPLETE SOLUTION

Sterile Air and Liquid Filters

We aim to provide a full range of compressed air and gas treatment solutions to wine producers. Our sterile-air and liquid filters, featuring compact filter housing and long element life, are the perfect complement to our NITROSource and Hyperchill ranges.

Our filtration solutions work to remove contaminants from air and liquid throughout the winemaking process – ensuring the highest quality outcome, from grape to glass.

FOCUSED ON PRODUCTIVE PARTNERSHIPS

At Parker, we aim to work in partnership with customers around the world, sharing expertise and know-how to develop new, better and more productive ways of making wine.

- NITROSource – the world's most energy efficient nitrogen generator, reducing costs, improving profitability and enhancing quality throughout the wine production process.
- Hyperchill Plus –technically advanced, compact, practical, highly efficient and reliable precision cooling; safeguarding the character and taste of every wine.
- Innovation – ongoing investment in R&D to bring ever higher standards of purification and fluid control for the wine industry.
- Quality assurance – World class manufacturing, service and technical back up, together with our extended warranty program we provide total confidence and peace of mind.

FOR MORE INFORMATION ABOUT OUR SOLUTIONS FOR THE WINE INDUSTRY, PLEASE CONTACT 800 343 4048

Worldwide Filtration Manufacturing Locations

North America

Compressed Air Treatment

Gas Separation & Filtration Division
Airtek/Finite/domnick hunter/Zander
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716 686 6400
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Haverhill, MA
978 858 0505
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Carson, CA
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