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Wine and Juice Product Catalog
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Welcome to 2020!

Welcome to 2020 and a new decade! As we look back at 2019, we are proud of the continued growth and expansion of ATPGroup and thankful for the ongoing support from you, our customers.

Our business has grown from offering a single product, Tartaric Acid, in 1991 to offering one of the industry’s broadest range of products today, enabling us to provide complete solutions and added value to our customers. Over the years we have built upon our original business by adding technical expertise, inventory management, supply chain diversity, best-in-class equipment maintenance and service, and FSMA expertise to our already diverse portfolio.

In 2019, we continued to expand this platform by launching new Enology Specialty Products under the ATPGroup label including an innovative line of tannins as well as new antioxidants, enzymes, and activated carbons. This gives us greater control over quality, price, and supply to ensure that only the highest-quality products are available to our customers consistently and at the best possible price/quality ratio.

In the spirit of offering more complete solutions, in 2020, we will be bringing you our new Cleaning & Sanitation Program specifically designed for the needs of wineries and juice production facilities. Created in accordance with relevant FSMA regulations affecting the wine and juice industries, the Program will help improve your bottom line by better safeguarding your wine or juice and lowering your risk of loss from spoilage. To complement the high-quality products under the ATPGroup label, we will offer customized programs including on-site training, SOP development, efficiency design support, inventory management, and more.

While 2019 was a successful year for ATPGroup, it was not without its challenges, as we dealt with Sonoma County’s “new normal” of wildfires and power outages. We continued to refine our Emergency Action Plan so that when faced with these events, disruption to our customers is minimal to none. With our multiple warehouses and office locations, we are well positioned to ensure our clients throughout North America receive timely shipments in all situations.

Again, we at ATPGroup thank each and every one of you for your continued support over the years and look forward to a fruitful and prosperous 2020 for all.

Saluti,

Luca Zanin, President
Enology Products

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Enzymes

Zyme-O-Clear Plus Liquid – Clarification Enzyme
This enzyme preserves the freshness and aromatic qualities of the grapes and is designed primarily for settling white juices with the added ability to improve filtration rates. Pre-press application improves free-run press yields.
- Results in better compaction of the lees for reduced losses at racking.
- Increases the yield when added to the press.
- Created from non-GMO Aspergillus Niger strains.
**Application:** To be added directly to grapes prior to the press or to the tank prior to fermentation.
**Packaging:** 1 kg and 25 kg containers.

Zyme-O-Color Plus Liquid – Maceration Enzyme
Increases color extraction and stability especially when used in conjunction with Color-Tan. Zymo-O-Color Plus enhances mouthfeel, structure and fruit character without an increase in bitterness.
- Improves filterability, particularly in Pinot Noir and Merlot.
- Optimizes the extraction of intracellular compounds such as tannins, anthocyanins and aroma compounds from the skins during maceration.
- Created from non-GMO Aspergillus Niger strains.
**Application:** To be added directly to grapes prior to the press or to the tank prior to fermentation.
**Packaging:** 1 kg and 25 kg containers.

Zyme-O-Aroma Plus – Aroma-Enhancing Enzyme
Increases free terpenes in the wine by up to five fold. Also increases aromatic intensity and fruit character above threshold even in “non-aromatic” and varietals characterized by thiol aromas.
- Contains high amounts of secondary activities such as β-glucosidase and arabinosidase.
- Allows for the release of aromatic precursors from glycosidic conjugates of mono-terpenes and C13 norisoprenoids present in many aromatic varieties.
- Increases the transfer of aromatic precursors from the grape berry in the must.
**Application:** End of fermentation.
**Packaging:** 1 kg and 25 kg containers.

Zyme-O-Glucanase
Zyme-O-Glucanase has been developed especially for enhancing the lysis of yeast cells during lees contact and for filtration improvement in wine processing especially in the case of grapes contaminated by Botrytis cinerea (high glucan content).
- Zyme-O-Glucanase is a highly concentrated granulated-glucanase.
- The enzyme has been purified to remove cinnamyl-esterase activity.
**Application:** Zyme-O-Glucanase is very active at typical must pH. Dilute 20 times the enzyme weight of chlorine-free water, add directly into the must or wine and mix well to homogenize into the tank.
**Packaging:** 500 g and 25 kg containers.
**Zyme-O-Thermo L**
Developed especially for skin maceration, for color extraction, and for thermovinification in red wines.
- A concentrated pectolytic and hemicellulasic enzyme produced from selected strains of Aspergillus niger.
- Pectinlyase breaks down the esterified pectin.
- High hemicellulasic and cellulosic activity break down cell wall to improve the extraction of color and structure components.
**Application:** Add directly into the must or well-homogenized into the mass.
**Packaging:** 25 kg container.
**Recommended Dosage:** 10 to 40 ml/ton.

**Zyme-O-Float Plus Liquid – Flotation Enzyme**
Specifically developed for use in the process of clarification by flotation in the production of white wines.
- Highly active and concentrated pectolytic enzyme preparation produced by classic fermentation of selected strains of Aspergillus niger.
**Application:** To be added directly to grapes prior to the press or direct to the tank prior to fermentation.
**Packaging:** 1 kg and 25 kg containers.

**Zyme-O-Xtra Liquid – For difficult-to-settle varietals**
Specifically developed for use in the production of difficult to settle varietals including Muscat, Viognier and French Hybrids.
- Highly active and concentrated pectolytic enzyme preparation produced by classic fermentation of selected strains of Aspergillus niger.
- Zyme-O-Xtra has significant pectin-lyase and arabanase activity.
**Application:** Can be used at any stage during the vinification process.
**Packaging:** 1 kg and 25 kg containers.

**Zyme-O-Stab**
Zyme-O-Stab is an acid protease from a selected strain of Aspergillus niger used primarily to prevent protein haze in white wines. Can be used for protein hydrolysis in the must instead of bentonite treatment.
- Reduces wine loss vs. bentonite treatment.
- Because grape proteins are folded and thus resistant to proteolysis, must should be flash pasteurized first to unfold proteins that then become sensitive to protease hydrolysis.
**Application:** To be added after depectinization, flash pasteurization of white must, or added after thermic treatment of red grapes.
**Packaging:** 1 kg and 25 kg containers.

**Vin-Lyso (Lysozyme) – Microbial Control Agent**
Naturally occurring enzyme isolated from egg whites.
- Inhibits the production of VA from the Lactic Acid Bacteria when added prior to reinoculating a stuck or slow fermentation.
- Inhibits MLF onset in a wine which has only partially completed MLF prior to bottling.
**Application:** Can be used at any stage during the vinification process.
**Packaging:** 1 kg and 5 kg containers.
Tannins

**Affina Structura**
A complete grape tannin extract in its natural form that imparts structure and mouthfeel.
- Particularly useful in finished wines where yeast derivatives cannot be used.
- Free of grape protein, so will not decrease protein stability

**Application:** Use during maturation and aging to manage fine lees, increase overall stability, and reduce the need for fining.

**Packaging:** 1kg packet

**Recommended Dosage:** White and rosé wines: 0.42 – 1.7 lb/1000 gal, 5 - 20 g/hL
Red wines: 0.85 – 2.1 lb/1000 gal, 10 - 25 g/hL

**Cherry-Tan**
Unique composition designed to add complexity and structure to red and rosé wine styles without imposing itself or ‘blemishing’ the wine.
- Integrates perfectly within the wine’s aromatic profile enhancing both the fruity and floral bouquet of the wine.
- Can be used in red and rosé wines at any stage.

**Application:** During fermentation, ideally this should be done in two doses on the 2nd and 4th day of fermentation. For rosé wines, only one dose on the 2nd day after the start of fermentation is required.

**Packaging:** 1 kg, 5 kg packet and 500 g.

**Recommended Dosage:** 0.2 – 0.6 lb/1,000 gal, 2 – 7 g/hL.

**Color-Tan**
For producing wines with smooth, full body and rounded structure by reacting with unstable proteins in the must.
- Higher doses add structure to tannin-deficient grapes.
- Also helpful at inhibiting the browning associated with Botrytis-affected grapes.
- Extracted from Quebracho (condensed tannin) and Chestnut (hydrolysable tannin).
- Rapidly stabilizes color.
- Prevents indigenous tannins from binding with proteins and precipitating out.

**Application:** To be used during fermentation, ideally in two doses; at the beginning of fermentation and 2 – 3 days later.

**Packaging:** 1 kg packet, 25 kg box and 25 kg drum.

**Recommended Dosage:** 1 – 2 lb/1,000 gal, 10 – 25 g/hL (powder).
2 – 4 lb/1,000 gal, 25 – 50 g/hL (liquid).

Exogenous tannins provide winemakers a versatile and powerful tool in quality wine production. They’re a very cost-effective way to enhance structure, stabilize against oxidation or refine aromatics in wines intended for both quick release and long-term aging.
**Color-Tan NT**
Formulated for its gentle impact on aromatic and flavor components while enhancing mouthfeel. Especially desirable when used with more delicate red grape varietals e.g. Pinot Noir or Merlot, which are low in natural tannin content.
- A blend of gallic polyphenols, effective antioxidants, and condensed polyphenols, responsible for the bonding of anthocyanins.
- In early additions, reacts with unstable proteins to provide richness in finished wines and build balanced structure.
- Secondary addition once fermentation has started promotes bonding of tannins and anthocyanins, providing optimal color stability.
**Application:** To be used during fermentation, ideally in two doses at the beginning of fermentation and 2–3 days later.
**Packaging:** 1 kg container and 25 kg box.
**Recommended Dosage:** 0.5 – 2 lb/1,000 gal, 6 – 25 g/hL.

**Gallic-Tan**
Protects juice and wine from standard oxidation and the effects of Botrytis-infected grapes.
- Acts as an aid during clarification to enhance fruit character in white wines.
- Can be added to heavily Botrytis-affected reds in conjunction with Color-Tan.
- Selectively reacts with proteins and reduces the activity of laccase and tryosinase on anthocyanins and polyphenols, lowering the risk of oxidation.
- Acts as a taste corrector, especially when in the presence of Botrytis-affected fruit.
**Application:** To be used on Botrytis-affected fruit and at any stage that a wine may be exposed to oxidation.
**Packaging:** 1 kg packet, 25 kg drum and 500 g.
**Recommended Dosage:** 0.4 – 1.2 lb/1,000 gal, 5 – 15 g/hL.

**Querca-Tan Blanc**
Anti-oxidative properties are ideal for use at the beginning of fermentation to regulate the oxi-reductive potential, complex the oxygen and prevent browning.
- Gives a very mild oak aroma to the wines enhancing the mature fruit bouquet.
- Simple extract of aged oak wood without any chemical treatment or heating.
- Extracted from wood of Quercus robur (English Oak) and petraea (Oak).
- For white and rosé wines where a strong wood note could be unpleasant.
**Application:** Exceptional for micro-oxygenation, especially in wines where it is necessary to maintain the varietal fruit notes.
**Packaging:** 1 kg packet.
**Recommended Dosage:** 0.1 – 0.5 lb/1,000 gal, 2 – 6 g/hL.

**Querca-Tan Rouge**
Improves the concentration of wood aroma precursors giving the wine a soft oak bouquet.
- Extracted from the wood of Quercus robur (English Oak) and petraea (Oak).
- Simple extract of aged oak wood without any chemical or heat treatment.
- Reduces oxygen concentration, deactivates the polyphenols oxidase activity and protects the color.
**Application:** Can be used at any stage of wine production from the beginning of fermentation to just before barrel maturation or micro-ox.
**Packaging:** 1 kg packet.
**Recommended Dosage:** 0.1 – 0.5 lb/1,000 gal, 2 – 6 g/hL.
Tannins

**Querca-Tan MK**
Enhances aromatic complexity with nuances of spicy mocha and chocolate.
- Stabilizes color and improves sensory attributes of the wine.
- Prolongs the aromatic persistency and softens the finish.
- Bestows the typical organoleptic notes usually derived from barrel maturation.
- Composed of Gallio-Ellagic tannins extracted from heavily-toasted American Oak.

**Application:** To be used at any stage of wine production — ideally suited for use in final blends.

**Packaging:** 500 g and 1 kg bottle.

**Recommended Dosage:** 0.15 – 1.2 lb/1,000 gal, 2 – 15 g/hL.

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**Querca-Tan UT**
Adds mid- and back-palate richness.
- Anti-oxidant effects protect wines from loss of aromatics and fruit character.
- Composed of Gallio-Ellagic tannins extracted from untoasted American Oak.
- Protects the wine from both oxidative and reductive media that produce serious defects in wine.
- Overcomes some of the problems associated with barrel-aged wines.

**Application:** Can be used at any stage of wine production — ideally prior to barrel maturation or micro-ox.

**Packaging:** 500 g bottle.

**Recommended Dosage:** 0.4 – 1.2 lb/1,000 gal, 5 – 15 g/hL.

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**Querca-Tan VN**
Helps to stabilize color and improve sensory attributes of the wine.
- Prolongs the aromatic persistency and softens the finish, while enhancing the aromatic complexity with nuances of sweet vanilla and cacao.
- Composed of Gallio-Ellagic tannins extracted from medium-toasted American Oak.
- Bestows the typical organoleptic notes usually derived from barrel maturation.

**Application:** To be used at any stage of wine production — ideally suited for use in final blends.

**Packaging:** 500 g packet (powder) and 1 kg bottle (liquid).

**Recommended Dosage:** 0.15 – 0.2 lb/1,000 gal, 2 – 15 g/hL (powder),
0.3 – 2.4 lb/1,000 gal, 4 – 30 g/hL (liquid).

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**Tani-Complete**
Broad palate enhancement in reds and whites.
- Maintains the aromatic characteristics and improves the final bouquet in red wines.
- Added during the aging of white wines in barrels to prevent oxidation and add complexity to the palate.
- Oak extracted from the heart of the Limousin oak region in France.
- Recommended for red and white wines during the aging process.

**Application:** To be used at any stage of wine production — ideally prior to barrel maturation or micro-ox.

**Packaging:** 1 kg bottle and 25 kg.

**Recommended Dosage:** 0.2 – 1.6 lb/1,000 gal, 2 – 20 g/hL.
**Tani-Heritage**

Tani-Heritage is a high-end formulation of ellagic and catechinic tannins. The specific toasting process used to produce it allows the extraction of a polyphenolic fraction that is extremely active on both color stabilization and aromatic precursors used by the yeast to release notes of toasted oak.

- Ideal tannin for micro-oxygenation.
- Increases wine structure.
- Strong antioxidant activity.

**Application:** Tani-Heritage has a wide range of applications.
- When used during fermentation, or soon after, it will positively impact color stabilization.
- On finished wines, Tani-Heritage is the ideal tannin to work in conjunction with micro-oxygenation to improve structure and aromatic complexity.
- Before bottling, it completes the aromatic profile.

**Packaging:** 1 kg packet.

**Recommended Dosage:**
- In fermentation: 0.6 – 1.5 lb/1,000 gal.
  - Finished wine: 0.3 – 0.6 lb/1,000 gal.
  - 4 – 7 g/hL.

**Tani-Grape**

Enhances wine structure and body especially in naturally tannin deficient wines.

- Helps prevent color oxidation.
- Stimulates polymerization resulting in the binding of the anthocyanins resulting in a wine which has softer tannins and improved structure.
- Softens the palate structure.
- Extracted entirely from the grape.

**Application:** To be used at any stage of wine production — ideally prior to bottling.

**Packaging:** 500 g bottle and 1 kg packet.

**Recommended Dosage:**
- 0.2 – 2.0 lb/1,000 gal.
  - 2 – 25 g/hL.

**Tannica Bouquet**

Reduces the impression of some off-flavor compounds while protecting aromatics from oxidation in white and rosé wines.

- Powdered blend extracted from wood.
- Innovative extraction and drying process preserves the molecular characteristics and reactivity, resulting in a powerful antioxidant effect.

**Application:** For late addition in wine maturation and pre-bottling.

**Packaging:** 1 kg packet.

**Recommended Dosage:**
- During maturation: 0.04 – 0.84 lb/1,000 gal.
  - 0.5 – 10 g/hL.
- Pre-bottling: 0.04 – 0.42 lb/1,000 gal.
  - 0.5 – 5 g/hL.
Tannins

**Tannica Fresco**
Provides antioxidant benefits and increases fresh aromatics, structure, and softness in white and rosé wines.
- A proanthocyanidin-rich tannin blend that binds free oxygen.
- Limited reactivity with proteins.
**Application:** Suitable for late addition immediately prior to bottling.
**Packaging:** 1 kg packet.
**Recommended Dosage:** Refining white and rosé wines:
- 0.08–0.84 lb/1,000 gal, 1–10 g/hL.
- At Bottling: 0.08–0.43 lb/1,000 gal, 1–5 g/hL.

**Tannica Lyon**
Imparts intense sweet and spicy notes along with high structure to red wine.
- French oak tannin extracted from wood chips toasted using new method of infrared heating that preserves the original natural aromas of the oak.
- Limited reactivity with proteins.
**Application:** Particularly suited for late addition just before bottling.
**Packaging:** 1 kg bottle.
**Recommended Dosage:** Refining red wine:
- 0.08–0.84 lb/1,000 gal, 1–10 g/hL.
- At bottling: 0.08–0.43 lb/1,000 gal, 1–5 g/hL.

**Tannica Luxe**
Imparts intense fruity notes along with high structure and softness in red, white, or rosé wines.
- Grape tannin.
- Limited reactivity with proteins.
**Application:** Particularly suited for late addition just before bottling.
**Packaging:** 1 kg packet.
**Recommended Dosage:** Refining white and rosé wine:
- 0.08–0.43 lb/1,000 gal, 1–5 g/hL.
- Refining red wine: 0.08–0.84 lb/1,000 gal, 1–10 g/hL.
- At bottling: 0.08–0.43 lb/1,000 gal, 1–5 g/hL.

**Tannica Rosso**
Promotes intense red fruit notes and refined structure and softness in red wine.
- Cold-extracted tannin.
- Limited reactivity with proteins.
**Application:** For addition immediately prior to bottling to enhance aromatics and refine structure.
**Packaging:** 1 kg packet.
**Recommended Dosage:** Refining red wine:
- 0.08–0.84 lb/1,000 gal, 1–10 g/hL.
- At bottling: 0.08–0.43 lb/1,000 gal, 1–5 g/hL.
Tani-Structure
Strengthens and amplifies the tannin structure.
- Contributes to the stability of the anthocyanins and prevents their oxidation and self-condensation.
- Extracted from Quebracho.
- Useful during micro-oxygenation, and in some cases to reduce astringency and herbaceous characters.

**Application:** To be used at any stage of wine production — ideally prior to barrel maturation or micro-ox.

**Packaging:** 1 kg packet.

**Recommended Dosage:** 0.2 – 1.2 lb/1,000 gal, 2 – 15 g/hL.

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**Tannin Chart**

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<thead>
<tr>
<th>WINE</th>
<th>TIMING</th>
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<tr>
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<td>Red</td>
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<td>Affina Structura</td>
<td>●</td>
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<tr>
<td>Cherry-Tan</td>
<td>●</td>
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<tr>
<td>Color-Tan</td>
<td>●</td>
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<tr>
<td>Color-Tan NT</td>
<td>●</td>
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<tr>
<td>Gallic-Tan</td>
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<tr>
<td>Querca-Tan Rouge</td>
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<tr>
<td>Querca-Tan Blanc</td>
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<td>Querca-Tan MK</td>
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<tr>
<td>Querca-Tan UT</td>
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<tr>
<td>Querca-Tan VN</td>
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<tr>
<td>Tani-Complete</td>
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<tr>
<td>Tani-Grape</td>
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<tr>
<td>Tani-Heritage</td>
<td>●</td>
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<tr>
<td>Tani-Structure</td>
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<tr>
<td>Tannica Bouquet</td>
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<td>Tannica Fresco</td>
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<tr>
<td>Tannica Luxe</td>
<td>●</td>
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<tr>
<td>Tannica Lyon</td>
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<tr>
<td>Tannica Rosso</td>
<td>●</td>
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</tbody>
</table>
Oak Alternatives

Oak Blocks
ATPGroup’s Oak Blocks are well-suited for medium or long-range aging. Available with two toast levels: Medium Toast and Medium Plus Toast.
• 100% Quercus Petraea from France.
• For best sweetness and roundness, 2 to 6 months contact time recommended.
• Block size: 1.97” x 1.97” x 0.63”.
• Oak Blocks are Food Grade-certified and complies with FDA and TTB regulation.
Packaging: 10 kg infusion bags packed inside an external bag.
Recommended Dosage: 2 to 5 g/liter or 1/6 to 1/2 lb/1,000 gal. Depending on dosing rate, a 10 kg bag is sufficient to treat 20 – 50 hL (530 to 1,300 gallons) of wine.

Oak Chips
Chips are toasted in a distinct manner resulting in a chip with forthright flavors and excellent tannins that provide body to the finished wine.
• Available in American Oak, French Oak and Maximum Impact.
• A variety of toast levels including: Untoasted, Medium or Maximum Impact
• Large size chips: 1.25 mm.
Packaging: 10 kg mesh infusion bags for easy use.

Oak Powder
Oak Powders are ideally suited to be added at the crusher prior to primary fermentation. Our Heinrich Oak Powder added in light doses during fermentation provides structure to the finished wine.
• Heavier doses during fermentation provides toastiness and masks greenness.
• Available in French and American Oak.
• Offered in two toast levels: Heinrich House Toast and Untoasted.
Packaging: 10 kg bag.

Oak Shavings
The unique toast profiles result in shavings which provide structure, “toastiness” and vanilla.
• Available in American Oak. Toast level – Heinrich House Toast.
• Chips can be added directly to crusher or at first pump over.
Packaging: Double bagged in 10 kg bags to preserve freshness.

Oak Staves
Oak Staves are available individually and create a “barrel-like” oak profile in stainless steel tanks.
• Available in both American and French Oak with a convection toast, as well as American Oak with a Maximum Impact toast.
• Staves can be used during fermentation, aging and finishing stages of wine production.
Packaging: 16 individual staves.

For more information, see MICRO-OXYGENATION page 58
Fining Agents, Stabilizers and Antioxidants

**Activegel**
High electrical charge gelatin produced with the specific goal of improving flotation processes, both batch and continuous systems.
• Highly effective in flotation and juice settling.
• Low dosage required.
• Easily soluble in room temperature water.
• High activity on improving wine filterability.
**Application:** Juice and wine.
**Packaging:** 15 kg bag.
**Recommended Dosage:** From 0.2 to 0.9 lb/1,000 gals, depending on the juice or wine type, 2 – 11 g/hL.

**AromaGuard**
Prevents juice oxidation, naturally preserving and enhancing the varietal aromatic characteristics even in wines made without additional sulfites.
• Powdered blend of cellulose, silica, condensed tannins, and potassium metabisulfite.
• The cellulose/silica complex quickly reacts to eliminate oxygen, simultaneously limiting laccase action.
• The condensed tannins act to bind O₂, enhancing the effectiveness of SO₂.
**Application:** Can be used during harvest or production.
**Packaging:** 15 kg bag.
**Recommended Dosage:** 2.2 lb/ton of grapes at harvest, more if needed depending on the cleanliness of the fruit and the distance to be travelled from vineyard to winery.

**Clarcoll**
Highly purified fish protein, produced with an innovative process to maximize surface charge without the need for pre-dissolution in water.
• Easily soluble.
• Effective at low dosages.
• Improves wine filterability.
• Very effective at reducing bitterness and astringency.
**Application:** Red and white wine.
**Packaging:** 1 kg packet.
**Recommended Dosage:** 0.2 to 0.8 lb/1,000 gals.
For highly turbid wines up to 2.5 lb/1,000 gals.
2 – 10 g/hL.

**Clarmix**
Innovative fining agent that exploits the synergy between gelatin and chitosan. The selective and absorbent properties enhance the clarification and fining effect in juice, must, and wine to reduce astringency, bitterness, and off-aromas, with the ability to selectively reduce spoilage microorganism activity.
• Easy to dissolve and use.
• Effective replacement of potassium caseinate.
**Application:** White and red wines and juices.
**Packaging:** 1 kg packet.
**Recommended Dosage:** 0.2 – 1.7 lb/1,000 gals, 2 – 20 g/hL.
Fining Agents, Stabilizers and Antioxidants

ClarNOF
A fining agent based on potato-derived proteins that increases the elegance and aromatic intensity of wine.
• Eliminates a wide range of unpleasant odors and faults from unfinished wine and reduces bitterness.
• Effective on wines aged in wood barrels or with oak chips when off-flavor or herbaceous notes remain.
• Non-allergenic.
**Application:** Can be used at any time during the winemaking process.
**Packaging:** 1 kg bottle.
**Recommended Dosage:** 0.08 – 4.17 lb/1,000 gal, 1–50 g/hL.

ClarPure
A fining agent for elimination of off-flavors and aromas caused by compounds such as mercaptans and volatile phenols related to Brettanomyces, smoke taint, and problem fermentations.
• Potato protein and chitin-glucan based.
• Non-allergenic.
**Application:** Use as soon as the first unpleasant characteristics develop.
**Packaging:** 1 kg packet or 15 kg.
**Recommended Dosage:** 0.08 – 03.3 lb/1,000 gal, 1 – 40 g/hL.

Coldstab Cel
Coldstab Cel is a specific carboxymethylcellulose (CMC) solution for stabilization of wine by prevention of tartrate precipitation.
Optimized for enological use, this 10% solution has a high stabilizing strength and does not impact the filterability of a wine when used according to manufacturer’s instructions.
• Ready to use.
• Low viscosity product to avoid affecting filterability.
• High concentration to reduce dosing rate require.
**Application:** White and rosé wines.
**Packaging:** 25 kg container.
**Recommended Dosage:** 4 – 8 lb/1,000 gals, 50–100 g/hL.

Coldstab 40
Coldstab 40 acts as a protective colloid, masking crystallization “germs.” This inhibits the formation of macro crystals and prevents them from precipitating. Intended for use on wines immediately before bottling to ensure chemical-physical stability. It can also be used on wines during cold stabilization to complete stabilizing.
• Advanced technology allows the production of a particularly pure lactide that is odorless and colorless in solution.
• Inhibits the formation of tartrates and bitartrates.
• (Only available in Canada and Mexico—not available in the U.S.).
**Application:** For use on wines immediately prior to bottling.
**Packaging:** 1 kg container.
**Recommended Dosage:** 0.83 lb /1,000 gal. max, 10 g/hL max.
**Coldstab Color**
Granulated gum Arabic that protects against both tartaric and color instability with no need to chill. It can also be used as a colloidal protector, preventing haze formation due to instabilities while stabilizing color.
- Will not plug bottling line membranes.
- Hydrolyzed and sterile filtered (0.45 micron membrane), then granulated through an exclusive process.
**Application:** White and rosé wines.
**Packaging:** 1 kg or 10 kg container.
**Recommended Dosage:** 2 – 8 lb/1,000 gals, 25 – 100 g/hL

**Defy-Ox**
An ascorbic acid and SO₂ based blend giving maximum protection in preventing oxidation in finished wines as a pre-bottling addition.
- Treated wines remain cleaner, fresher and retain a better organoleptic profile over time.
- Acts powerfully as a preventive measure and as a cure on wines which tend to oxidize by lowering the oxidation-reduction potential.
**Application:** Pre-bottling addition.
**Packaging:** 1 kg packet.
**Recommended Dosage:** 1 – 4 lb/1,000 gal, 10 – 50 g/hL.

**Fermo-Casein**
Potassium caseinate based fermentation aid designed to produce wines that are stable from all standpoints: catechins, proteins and polyphenols. Adsorbs the oxidizable polyphenols and stabilizes the proteins in the must.
- The electrostatically charged cellulose fibers not only improve the action of the bentonite, but adsorb the fatty acids produced by the yeast during stressful fermentations.
**Application:** To be added to the tanks once fermentation has started.
**Packaging:** 20 kg bag.
**Recommended Dosage:** 1 – 4 lb/1,000 gal, 10 – 50 g/hL.

**Liquagel-50**
Designed to remove the tannins normally attributed to astringency without reaction with the anthocyanins responsible for color.
- In red and white wines results are a softer wine less susceptible to oxidation.
- Improves the taste of wines by stabilizing and enhancing tannins.
- A ready-to-use ultra-pure liquid gelatin.
- Provides body and suppleness to the wines by removing the aggressive and astringent tannins.
**Application:** To be added at any stage of the winemaking process to reduce astringency.
**Packaging:** 25 kg and 200 kg containers.
**Recommended Dosage:** 0.25 – 4 lb/1,000 gal, 3 – 50 g/hL.
Fining Agents, Stabilizers and Antioxidants

**Liquasil-30**
A 30% Silicon Dioxide solution designed for clarification of must and wine to increase the efficiency of protein fining agents such as Liquagel-50 while preventing over-finishing.
- Negative charge of the Liquasil-30 combined with the positive charge of the Liquagel-50, creates a flocculating “net” which forces solids to the bottom of the tank.
- Designed for must clarification but can be used on wines.
- Should be used in conjunction with Liquagel-50 liquid gelatin.

**Application:** To be added at any stage of the winemaking process to reduce astringency.

**Packaging:** 25 kg containers.

**Recommended Dosage:** 1 – 5 lb/1,000 gal, 10 – 60 g/hL.

**LGA-20**
LGA-20 is a colloidal solution derived from the solubilization of the gum arabic of the most selected varieties of the Acacia tree.
- 20% liquid gum arabic solution finished by micro-filtration to ensure maximum ease of use.
- With an electropositive charge, LGA-20 can be used as a colloidal protector which will prevent haze formation due to instabilities while stabilizing color.
- Increases roundness on the palate as well as body and structure.

**Application:** To be added prior to the final filtration.

**Packaging:** 25 kg and 200 kg containers.

**Recommended Dosage:** 1 – 10 lb/1,000 gal, 10 – 100 g/hL.

**LGA-30**
30 percent liquid gum arabic solution derived from the solubilization of the gum arabic of the most selected varieties of the Acacia tree.
- With an electropositive charge LGA-30 can be used as a colloidal protector which also aids in the prevention of haze formation due to instabilities while stabilizing color.
- Other benefits: Enhance body and structure, increase roundness on the palate, inhibit formation and precipitation of tartrate crystals.

**Application:** To be added prior to final filtration.

**Packaging:** 25 kg and 200 kg drum.

**Recommended Dosage:** 1 – 6 lb/1,000 gal, 10 – 70 g/hL.

**MustGuard**
Ascorbic acid based blend particularly effective in preventing oxidation in machine-picked grapes or where grapes are shipped long distances to winery.
- To be added to grapes during harvesting.
- Acts aggressively in preventing oxidation of the juice in the harvesting bins from mechanically harvest grapes.
- Ideally suited for all white grape varieties, especially where rot or botrytis is present.

**Application:** Sprinkle the dose over grapes as soon as they are harvested.

**Packaging:** 5 kg box.

**Recommended Dosage:** 1 – 2 lb/1 U.S. ton of grapes. 10 – 30 g/hL.
**OxyGuard**

Prevents and corrects unwanted oxidation in finished wine.
- Blend of nano- and micro-crystalline cellulose in powder form.
- Produced from fermented cellulose pulp.

**Application**: Suitable for use in all wines during maturation or aging.

**Packaging**: 5 kg bag.

**Recommended Dosage**:
- To prevent oxidation: White and rosé wines: 0.42–0.85 lb/1,000 gal, 5–10 g/hL
- Red wines: 0.08–0.6 lb/1,000 gal, 1–7 g/hL
- To resolve oxidation: White and rosé wines: 0.85–3.4 lb/1,000 gal, 10–40 g/hL
- Red wines: 0.42–0.85 lb/1,000 gal, 5–10 g/hL

**Phenol-Fine Plus NF**

Designed to reduce phenolic content and color by adsorbing polyphenolic substances susceptible to oxidation such as flavanoids, catechins, and leucoanthocyanins.
- A specialized blend of PVPP, caseinate, and highly adsorptive bentonite.
- Can also be used for color reduction in Pinot Grigio/Pinot Gris; for the reduction of brown/pink hues and catechins in white wines; and for the removal of brown hues in rosé wines.

**Application**: Best used during fermentation as a preventive treatment.

**Packaging**: 1 kg packet and 15 kg.

**Recommended Dosage**: 0.8 – 7.5 lb/1,000 gal, 10 – 90 g/hL

**Puri-Bent**

Pure, highly refined bentonite obtained from highest-quality montmorillonite clay.
- The extraordinary adsorption properties and high swelling capacity insures the lowest possible dosage rates.
- Acts by removing proteins and polyhydric phenols.
- Recommended for use in all musts or wines.

**Application**: To be added at any stage of the winemaking process to achieve protein stability.

**Packaging**: 25 kg bag.

**Recommended Dosage**: 1 – 4 lb/1,000 gal, 10 – 50 g/hL

**PVPP-V – Polyclar V**

This highly-effective wine stabilizer is optimized for maximum, fast-acting reduction of polyphenols, such as leucoanthocyanadins and catechins that may cause “pinking” and “browning” through oxidative polymerization.
- Average particle size of around 25 microns.

**Application**: To be added at any stage of the winemaking process.

**Packaging**: 44 lb drum.

**Recommended Dosage**: 1 – 6 lb/1,000 gal, 10 – 70 g/hL.
Fining Agents, Stabilizers and Antioxidants

PVPP-VT – Polyclar VT
Primary function is to remove phenolic compounds from white wines and/or be added to vessels where faster settling is required.
• Also effective in removal of astringency in reds without removing color as a non-allergenic fining alternative.
• Average particle size of around 110 microns.
**Application:** Can be added at any stage of the winemaking process.
**Packaging:** 50 lb drum.
**Recommended Dosage:** 1–6 lb/1,000 gal.
                  10–70 g/hL.

Spring’Finer – Allergen-Free Fining
Exclusively from yeast origins, Spring’Finer is a high molecular yeast protein that is allergen-free and can be considered the sole fining agent totally integrated in wine elaboration. Spring’Finer also helps reduce bitterness and astringency in your wine.
**Packaging:** 125 g bag.
**Recommended Dosage:**
- 0.4–1.5 lb/1,000 gal (juice);
- 0.4–1.2 lb/1,000 gal (red wine);
- 0.1–0.4 lb/1,000 gal (white and rosé wines).
- 5–20 g/hL (juice);
- 5–15 g/hL (red wine);
- 1–5 g/hL (white and rosé wines).
Preventing Unwanted Oxidation in Wine

Risks of excessive oxidation

Excessive oxidation creates an irreversible loss of quality in wine and negatively impacts color, aromatics, flavors, and mouthfeel. It occurs whenever grapes, must, juice, or finished wine come in contact with air, so poses a risk throughout the entire production process.

White and rosé wines show a loss of both aromatics and flavor when exposed to oxygen and can also develop undesirable brown pigmentation. While the browning can be reduced with clarifiers such as Phenol-Fine Plus NF, lost aromatic and flavor compounds cannot be recovered, so prevention is key.

For red wines, a primary concern is color loss. Color compounds are extracted during crush and, if unprotected, can be lost through precipitation. To counter that effect, tannins such as Color-Tan NT can be added. Early addition is key. These tannins can be added even as the fermentation tank is being filled.

Prevention

ATPGroup offers a full range of products to combat oxidation at every stage of the production process:
• MustGuard is an ascorbic acid blend particularly effective in preventing oxidation on must and juice.
• AromaGuard is a blend of cellulose, silica, condensed tannins and potassium metabsulfite used on must and juice. It helps reduce oxidative coloration and protects aromatic compounds. It contains no ascorbic acid.
• Phenol-Fine Plus NF is a specialized blend of PVPP, caseinate, and highly-absorptive bentonite that helps correct browning and pinking in white and rosé wines. It is best used during fermentation.
• Color-Tan NT is a blend of gallic, acacia, and quebracho tannins that is used during fermentation to stabilize wine color while enhancing aromatics and mouthfeel.
• OxyGuard is pure cellulose and contains no ascorbic acid. It absorbs oxidized color, correcting the color hue and maintaining aromatic freshness. It was designed for use in large tanks that remain partially full for extended periods of time but can also be used in smaller tanks.
Fermentis SafOeno™ Yeast

What is E2U™?
Fermentis’ E2U™ (“Easy to Use”) yeasts allow you to optimize the quality of your wines with products that are simpler to use, require less water and energy, and positively impact your bottom line. With E2U you can skip the rehydration step and add it directly to the must, saving you time and effort. It offers the added benefit of flexibility, and can also be used with rehydration and acclimatization, or with rehydration in tap water, when those methods are preferred. Extensive testing on each E2U strain concluded that with or without rehydration, the results of fermentation, flavors, aromas, color, and alcohol % showed no significant differences.

Preserved viability in all rehydration conditions

Maintained fermentation performances with all rehydration conditions and alcohol fermentation kinetics

Yeast preparation conditions: Usual: rehydration in tap water at 35/37˚C (95–98.6˚F) then progressive acclimatization to must temperature with must addition before inoculation, Cold: rehydration in tap water at 15/17˚C (59–62.6˚F), Must: direct pitching. Dotted line: average fermentation temperature.

Triangular Tasting

Tests conducted by Meurice Institute (Brussels, Belgium) and Biovin S.A., Laboratorio de Servicios en Microbiología y Biotecnología Enológica (Mendoza, Argentina) on easy 2 use Safóeno HDS135, a strain designed for the production of full bodied... but smooth reds.

NS: nonsignificant differences.
**HD S135**

Recommended for the production of harmonious, full-bodied wines with persistent fruit.
- High alcohol tolerance (15%), fast kinetics and low nitrogen requirement.
- Brings a very good structure balanced with a round mouthfeel (soft tannins).
- Easy-2-Use™.
- S. cerevisiae; x. cerevisiae (hybrid cerevisiae and bayanus).

**Application:** Ideal for fruit driven, short to middle aging premium red wines: Merlot, Cabernet Sauvignon, Zinfandel, etc.

**Packaging:** 500 g package and 10 kg box.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.

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**HD S62**

Recommended to produce deeply colored and structured wines.
- High alcohol tolerance (15%), fast kinetics and low nitrogen requirements.
- Low production of higher alcohols and esters, fresh fruit oriented.
- Strong malic acid consumption favoring MLF.
- Easy-2-Use™.
- S. cerevisiae; x. cerevisiae (hybrid cerevisiae and bayanus).

**Application:** HD S62 favors long aging conditions but can also bring structure and fresh fruit intensity to young wines. Premium Cabernet Sauvignon, Merlot, Tempranillo, Malbec, Sangiovese, Grenache, etc.

**Packaging:** 500 g package.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.

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**UCLM S377**

Ideal for production of high quality red wines.
- Good alcohol tolerance (14.5%) and high nitrogen requirements.
- This strain has a slow kinetics and requires regular temperature. It is well adapted to long maceration to finely structure the wines.
- Low VA, H₂S and SO₂ production.
- Low color adsorption ideal for grapes.
- S. cerevisiae; x. cerevisiae.

**Application:** Middle to long aging fine red wines (Cabernet Sauvignon, Cabernet Franc, Zinfandel, etc.) and popular on Malbec and Tempranillo.

**Packaging:** 500 g package and 10 kg box.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.

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**NDA 21**

NDA 21 produces harmonious, intense colored and well-balanced red wines with persistent fruit and spice aromatics.
- Good alcohol tolerance (15%), medium kinetics and medium nitrogen requirements.
- Easy-2-Use™.
- S. cerevisiae; x. cerevisiae.

**Application:** NDA21 is well-suited to short-aging wines, like Mediterranean varietals (Syrah, Mourvèdre, etc.) and other spicy varieties (Zinfandel).

**Packaging:** 500 g package and 10 kg box.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.
Fermentis SafOeno™ Yeast

**SC 22**
SC22 is the very first strain selected for wine application. It is a classic strain for grand cru, neat and clean ferments in respect of premium fruits.
- Good alcohol tolerance (15%), medium kinetics and medium nitrogen requirements.
- This is a very low producer of volatile acidity.
- Well adapted to barrel fermentation with limited temperature control.
- S. cerevisiae; x. bayanus.

**Application:** Suited for all varieties: red (Cabernet Sauvignon, Cabernet Franc and Merlot), white (Chardonnay, Viognier, Chenin Blanc) and rosé.

**Packaging:** 500 g package.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.

**STG S101**
Recommended for musts with cold pre-fermentation maceration, carbonic maceration and thermovinification.
- Alcohol tolerant between 13% – 13.5%, slow fermenter.
- High ester production.
- Very low VA, low H₂S and SO₂ production.
- Wines produced are characterized by high ester production, fruity and floral aromas.
- S. cerevisiae; x. cerevisiae.

**Application:** Perfect for light and primeur red wines. Suited for Grenache, Pinot Noir and Gamay.

**Packaging:** 500 g package and 10 kg box.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.

**BC S103**
Recommended for extreme winemaking conditions. BCS103 is known for clean fermentations that respect the varietal character.
- Very high alcohol tolerance (up to 18%).
- Wide fermentation temperature spectrum: 10–35 °C (50–95 °F).
- Ideal to restart stuck or sluggish fermentations with very low H₂S and VA production.
- S. cerevisiae; x. bayanus.

**Application:** Suited for Cabernet, Zinfandel, Chardonnay, Sparklin Base, high brix musts.

**Packaging:** 500 g package and 10 kg box.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.

**VR 44**
VR 44 is characterized by excellent fermentation kinetics, respect for varietal aromatics and resistance to extreme winemaking conditions.
- Good alcohol tolerance (16%), fast fermentation and very low nitrogen requirements.
- Wide fermentation temperature spectrum: 10 – 35 °C (50 – 95 °F).
- With its high autolysis capacity this yeast will bring a very good roundness to wine.
- S. cerevisiae; x. bayanus.

**Application:** Suited for white (Semillon, Chardonnay), red (Cabernet Sauvignon, Merlot), rosé and sparkling wines.

**Packaging:** 500 g package.

**Recommended Dosage:** 2 lb/1,000 gal, 20 g/hL.
GV S107
Latest release in the Fermentis yeast range, GV S107 brings roundness and high aromatic expression to premium white wines.
• Good alcohol tolerance (15%), slow fermenter (medium with pH>3.5) and medium nitrogen requirements.
• Wide fermentation temperature spectrum: 10–35° C (50–95° F).
• Strain adapted to high alcohol, full bodied whites, barrel aged on lees & undergoing malolactic fermentation.
• High production of esters. Balanced and clean, fruity and floral complexity with a long lasting finish and a very good mouthfeel.
• Also gently promotes terpenic and C13-Norisoprenoids varieties.
• S. cerevisiae; x. cerevisiae.
Application: Selected for premium white wines. It is ideal for Chardonnay and recommended for Viognier, Chenin Blanc, Riesling, etc.
Packaging: 500 g package and 10 kg box.
Recommended Dosage: 2 lbs/1,000 gal, 20 g/hL.

CK S102
Selected in the Loire Valley on Sauvignon Blanc this strain is well suited to very intense aromatic whites and rosés.
• Very fast fermenter, alcohol tolerance up to 15% & strong nitrogen requirement to optimize the aromatic potential.
• Medium low VA, H₂S and SO₂ production with a well-adapted nutrition program.
• Strongly promotes fruity thiols and gently promotes terpenes. Very good ester production.
• S. cerevisiae; x. cerevisiae.
Application: Suited for Sauvignon Blanc, Semillon, Chenin Blanc and rosé.
Packaging: 500 g package.
Recommended Dosage: 2 lb/1,000 gal, 20 g/hL.

UCLM S325
Ideal for aromatic white wines, particularly those with terpenic and C13 Norisoprenoid varietal aromas.
• Limited alcohol tolerance (13%) ideal for sweet wine, slow fermenter and high nitrogen demand.
• Low VA, H₂S and SO₂ and high glycerol production (10g/L).
• High beta-glycosidase activity on bound terpenes and C13 Norisoprenoids that leads to excellent organoleptic results of floral and citrus aromas.
• S. cerevisiae; x. cerevisiae.
Application: Suited for Muscat, Riesling, Pinot Gris, Gewurztraminer, Viognier and sweet wines.
Packaging: 500 g package.
Recommended Dosage: 2 lb/1,000 gal, 20 g/hL.

HD A54
Ideal for intensely fruity white wines and rosés.
• Created through a Lesaffre R&D yeast hybridization program.
• Overexpress fermentative floral and fruity higher alcohols and their corresponding acetate esters while keeping a clean fermentation profile.
• Great choice for light young wines, neutral bases and varieties.
Application: Suited for rosé and neutral white varietals or Aromatic varietals requiring aroma enhancement (Sauvignon Blanc, Viognier, etc.).
Packaging: 500 g package.
Recommended Dosage: 2 lb/1,000 gal, 20 g/hL.
Fermentis SafOeno™ Yeast

HD T18
Ideal for elegant and fresh terpenic white wines.
- Created through a Lesaffre R&D yeast hybridization program.
- Particularly suitable for the expression of varietal terpenic aromas with a nice mouthfeel balance and clean fermentation profile.

Application: Suited for Muscat, Viognier, Riesling, Gewurtztraminer.
Packaging: 500 g package.
Recommended Dosage: 2 lb/1,000 gal, 20 g/hL.

How to choose your active dry yeast.
There’s a SafOeno™ yeast for every condition.

You have the choice between different strains to ferment your must according to the best standards of quality and productivity. Red, white, rosé or sparkling, our yeasts can meet all your expectations, both technically and sensory, to reveal the aromas you are looking for.
<table>
<thead>
<tr>
<th>SAFENO™ RANGE</th>
<th>TAXONOMY</th>
<th>WHITE</th>
<th>ROSE</th>
<th>RED</th>
<th>SPARKLING</th>
<th>RESTART</th>
<th>USE RECOMMENDATION</th>
<th>BEST SUITED FOR</th>
<th>AROMAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safeno™ HD 5135</td>
<td>Hybrid</td>
<td>S. cerevisiae x S. bayanus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For premium, structured and long aging red wines: Cab Sauv, Syrah, Zinfandel... Adaptable to long maceration wines (&gt;10d) because of slow kinetic allowing to elaborate finely structured wine. Also adapted to Mediterranean style varieties: Malbec, Tempranillo, Grenache.</td>
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<tr>
<td>Safeno™ HD 562</td>
<td>Hybrid</td>
<td>S. cerevisiae x S. bayanus</td>
<td></td>
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<td></td>
<td></td>
<td>Excellent polyphenolic extraction that favors long aging conditions and elegance for premium reds in respect of their cultivar. Also brings structure, color and fresh fruit intensity to young wines.</td>
<td>Red wines requiring structure enhancement</td>
<td></td>
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<tr>
<td>Safeno™ UCLM 5377</td>
<td>S. cerevisiae</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For premium, structured and long aging red wines: Cab Sauv, Syrah, Zinfandel... Adapted to long maceration wines (&gt;10d) because of slow kinetic allowing to elaborate finely structured wine. Also adapted to Mediterranean style varieties: Malbec, Tempranillo, Grenache.</td>
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<tr>
<td>Safeno™ STG 5101</td>
<td>S. cerevisiae</td>
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<td></td>
<td>Selected for its high ester production, it is perfect for light and fruity reds and recommended for musts with cold pre-fermentation maceration, for primeur reds from carbonic maceration or thermodinification as well as rosés (beware of temperature). Pinot noir, Gamay, young Tempranillo, Sangiovese, Grenache.</td>
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<tr>
<td>Safeno™ NDA 21</td>
<td>S. cerevisiae</td>
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<td>This strain produces intense colored, harmonious, fruity &amp; spicy red wines with a short aging period. It brings roundness and excellent balance for Syrah, Zinfandel, Merlot. Also appreciated on Mediterranean varieties like Mourvedre and Nero D’Avola.</td>
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<tr>
<td>Safeno™ SC 22</td>
<td>S. cerevisiae</td>
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<td></td>
<td></td>
<td>Respects varietal character, safe and regular fermentation adapted to Bordeaux grapes like Cab Sauv, Cab Franc &amp; Merlot. It is ideal for barrel fermentations without temperature control. Also good for enhancing fruitiness and roundness on whites and rosés at low temperature (Chenin blanc, Viognier).</td>
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<tr>
<td>Safeno™ VR 44</td>
<td>S. bayanus</td>
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<td></td>
<td>Excellent fermentation characteristics and resistance to difficult winemaking conditions! Ideal for sparklings made with traditional method. Brings a good roundness to the wines and is also adapted to a wide range of premium reds and whites (Cab Sauv, Merlot, Carmenera, Barbera, Sangiovese, Chardonnay, Semillon, Pinot gris...).</td>
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<tr>
<td>Safeno™ BC 5103</td>
<td>S. bayanus</td>
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<td></td>
<td></td>
<td>Great resistance for extreme winemaking conditions and stuck ferment! Adapted to all kinds of must even with high concentration of SO² or highly clarified. Enhances varietal characters. Recommended for high Brix reds, fresh and neat whites and for second fermentation in tank.</td>
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<tr>
<td>Safeno™ GV 5107</td>
<td>S. cerevisiae</td>
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<td></td>
<td>New premium white wine strain that brings roundness and aromatic complexity. Adapted to high alcohol and full bodied whites, barrel aged on lees &amp; undergoing malolactic fermentation. For complex wines from elegant varieties like Chardonnay. Gently promotes aromatic varieties potential with floral and fresh fruit notes (Viognier, Chenin, Riesling, Gewurztraminer...).</td>
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<tr>
<td>Safeno™ CK 5102</td>
<td>S. cerevisiae</td>
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<td></td>
<td>Selected from the Val de Loire on Sauvignon blanc, this strain is suited for very intense aromatic whites and rosés. It specifically promotes fruity thiols but also terpenes (Sauvignon Blanc, Riesling, Gewurztraminer...). Resistant to difficult winemaking conditions, it also promotes neutral varieties thanks to a high ester production (Chardonnay, Vinho verde types).</td>
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<tr>
<td>Safeno™ UCLM 5325</td>
<td>S. cerevisiae</td>
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<td>Ability to optimize white wines expression character. High beta-glucosidase activity allowing terpenes and C13-Norisoprenoid release (Muscat, Riesling, Viognier, Gewürztraminer, Pinot gris). Good results as well on aromatic whites (like Sauvignon blanc and Semillon) and ideally adapted to sweet wines thanks to its low resistance to difficult fermentation conditions.</td>
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</tbody>
</table>
## Yeast Table

### FERMENTATION PARAMETERS & METABOLISM

<table>
<thead>
<tr>
<th>Quality</th>
<th>High roundness</th>
<th>Medium high structure</th>
<th>Low (160-220ppm)</th>
<th>14-30°C (57-86°F)</th>
<th>Fast</th>
<th>Sensitive but good settlement</th>
<th>Low - Medium</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. cerevisiae®</td>
<td>Medium low roundness</td>
<td>High structure</td>
<td>&gt;15%</td>
<td>Low (160-220ppm)</td>
<td>14-30°C (57-86°F)</td>
<td>Fast</td>
<td>Sensitive and good settlement at temperature &gt;17°C / 62°F</td>
<td>Low - Medium</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium high roundness</td>
<td>High structure</td>
<td>14.5%</td>
<td>Medium (180-220ppm)</td>
<td>17-30°C (62-86°F)</td>
<td>Slow</td>
<td>Sensitive but good settlement</td>
<td>Low - Medium</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium low roundness</td>
<td>Low structure (reds)</td>
<td>13.5%</td>
<td>Medium (180-220ppm)</td>
<td>14-30°C (57-86°F)</td>
<td>Medium</td>
<td>Sensitive but good settlement</td>
<td>Low - Medium</td>
</tr>
<tr>
<td>Non-alcoholic</td>
<td>Medium low roundness</td>
<td>«Medium structure»</td>
<td>15%</td>
<td>Medium (180-220ppm)</td>
<td>14-30°C (57-86°F)</td>
<td>Medium</td>
<td>Sensitive but excellent settlement</td>
<td>Low - Medium</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium low roundness</td>
<td>«Medium structure (reds)»</td>
<td>15%</td>
<td>Low (160-220ppm)</td>
<td>14-30°C (57-86°F)</td>
<td>Medium</td>
<td>Sensitive but excellent settlement</td>
<td>Low - Medium</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium high roundness</td>
<td>«Low structure (reds)»</td>
<td>16%</td>
<td>Very Low (160-180ppm)</td>
<td>Wide range 10-30°C (50-86°F)</td>
<td>Fast</td>
<td>Killer strain and excellent settlement</td>
<td>Medium - Medium plus</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium low roundness</td>
<td>«Low structure (reds)»</td>
<td>18%</td>
<td>Very Low (160-180ppm)</td>
<td>Wide range 10-30°C (50-86°F)</td>
<td>Very fast</td>
<td>Sensitive but excellent settlement</td>
<td>Medium low - Medium</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium high roundness</td>
<td>ND</td>
<td>15%</td>
<td>Medium (180-220ppm)</td>
<td>Wide range 10-30°C (50-86°F)</td>
<td>Slow</td>
<td>Neutral and good settlement</td>
<td>Medium low - Medium</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium high roundness</td>
<td>ND</td>
<td>15%</td>
<td>Strong to optimize aromatic expression (&gt;220 ppm)</td>
<td>Wide range 10-30°C (50-86°F)</td>
<td>Very fast</td>
<td>Killer and good settlement</td>
<td>Medium plus - Medium plus</td>
</tr>
<tr>
<td>S. cerevisiae®</td>
<td>Medium roundness</td>
<td>ND</td>
<td>13%</td>
<td>Strong (&gt;220 ppm)</td>
<td>17-30°C (62-86°F)</td>
<td>Slow</td>
<td>Killer and good settlement</td>
<td>Low - Medium</td>
</tr>
</tbody>
</table>
Red Star Yeast

**Premier Classique**
Produces dry white and red wines with good flavor complexity and full body.
- A strong fermenter with good alcohol tolerance up to 15%.
- This yeast has low nitrogen requirement and a very low production of volatile acidity and acetaldehyde.
- Premier Classique has been derived from the collection of the University of California.
- This product was formally known as Montrachet.
- S. cerevisae; x. cerevisiae.
**Application:** Suited for whites and full-bodied reds.
**Packaging:** 500 g packet and 10 kg box.
**Recommended Dosage:** 2 lb/1,000 gal, 25 g/hL.

**Premier Blanc**
This *Saccharomyces bayanus* strain is a strong fermenter and will readily ferment any type of grape musts and fruit juices to dryness.
- Excellent alcohol (18%) and SO$_2$ tolerance & very fast fermentation.
- Very low nutrient requirements and very good fructophilic abilities.
- Very respectful of varietal character and balanced mouthfeel.
- Derived from a pure culture slant of the institute Pasteur in Paris (Davis 595).
- This product was formally known as Pasteur Blanc or Pasteur Champagne.
- S. cerevisiae; x. bayanus.
**Application:** Best suited for white, red and fruit wines.
**Packaging:** 500 g packet and 10 kg box.
**Recommended Dosage:** 2 lb/1,000 gal, 25 g/hL.

**Premier Cuvée**
Fast, neutral fermenter that is the most all-purpose yeast available.
- This yeast is particularly adapted to difficult fermentation conditions due to its high alcohol tolerance (16%) and low relative nitrogen requirements.
- Particularly adapted to restart stuck or sluggish fermentations.
- Low producer of foam, urea, and fusel oils & good roundness.
- S. cerevisiae; x. bayanus.
**Application:** Suited for red and white varieties including Chardonnay, Sparkling Base, Merlot and Cabernet Sauvignon.
**Packaging:** 500 g packet and 10 kg box.
**Recommended Dosage:** 2 lb/1,000 gal, 25 g/hL.

**Premier Côte des Blancs**
A slower fermenting, low foaming yeast, Premier Côte des Blancs produces wines characterized by fine, fruity aromatics.
- Alcohol tolerant to 14%, slow and regular fermenter even at low temperature (12–14° C).
- High nitrogen requirement to ensure the maintenance of fruity aromas.
- Derived from a selection at the Geisenheim Institute in Germany (Davis 750).
- This product was formally known as Côte des Blancs.
- S. cerevisiae; x. cerevisiae.
**Application:** Suited for residual sugar wines, light young reds and sparkling cuvée.
**Packaging:** 500 g packet and 10 kg box.
**Recommended Dosage:** 2 lb/1,000 gal, 25 g/hL.
## Premier Rouge

Encourages the development of varietal fruit flavors balanced by complex aromas for full-bodied reds especially in Cabernet family varietals.

- Premier Rouge is a strong fermenter with a good alcohol tolerance to 15%.
- Controlled temperature preferred (keep the fermenting must below 30°C/86°F).
- Derived from the collection of the Institute Pasteur in Paris (Davis 904).
- This product was formally known as Pasteur Red.
- S. cerevisiae; x. cerevisiae.

**Application:** Suited for red wines especially Cabernet Sauvignon and Cabernet Franc.

**Packaging:** 500 g packet and 10 kg box.

**Recommended Dosage:** 2 lb/1,000 gal, 25 g/hL.

### CHOICE WINE STYLE

<table>
<thead>
<tr>
<th>Red Star™ Yeast Strain</th>
<th>WHITE</th>
<th>ROSE</th>
<th>RED</th>
<th>SPARKLING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Premier Cuvée</strong></td>
<td>★★★★</td>
<td>★★★</td>
<td>★★</td>
<td>★</td>
</tr>
<tr>
<td>USE RECOMMENDATION</td>
<td>One of the fastest, cleanest, and most neutral of all Red Star yeasts for reds, whites and sparkling wines. Excellent fermenter and resistant to difficult winemaking conditions.</td>
<td>Elegant wines, Cabernet Sauvignon, Chardonnay, etc. and traditional sparkling wines.</td>
<td>Medium intensity, high ethyl esters production and respect of varietal character.</td>
<td>High roundness</td>
</tr>
<tr>
<td>BEST SUITED FOR</td>
<td>Extreme conditions promotion of acetate fermentations: high brix musts, red, white, rose and sparkling.</td>
<td>Extreme conditions promotion of acetate fermentations: high brix musts, red, white, rose and sparkling.</td>
<td>Medium intensity, high esters and higher alcohol production at low temperature.</td>
<td>Medium low roundness</td>
</tr>
<tr>
<td>AROMATICS</td>
<td>From a French cultivar, Côte des Blancs is one of the most traditional aromatic strains for white wines, an excellent choice for fruity or sweet wines.</td>
<td>Neat and clean ferment to value premium fruits, barrel fermentation, Bordeaux varietals.</td>
<td>Medium high intensity, low acetate esters production and medium high production of ethyl esters, promotion of thiois and C13 Norisoprenoids.</td>
<td>Medium low roundness</td>
</tr>
<tr>
<td>ROUNDNESS*</td>
<td>High intensity, complex with ripe red and black fruits. Enhancing oak flavors.</td>
<td>Medium high intensity, low acetate esters production and medium high production of ethyl esters, promotion of thiois and C13 Norisoprenoids.</td>
<td>Medium high roundness</td>
<td>★★★</td>
</tr>
<tr>
<td>STRUCTURE**</td>
<td>Elegant wines, Cabernet Sauvignon, Merlot, Zinfandel, etc.</td>
<td>Full-bodied red wines where complex aromas are desired: Cabernet Sauvignon, Merlot, Zinfandel, etc.</td>
<td>High intensity, complex with ripe red and black fruits. Enhancing oak flavors.</td>
<td>Medium high roundness</td>
</tr>
</tbody>
</table>

* ROUNDNESS: Polysaccharides, autolysis capacity, polymerization of tannins and glycerol.
** STRUCTURE: Polyphenol extraction, tannins and anthocyanins.
Yeast Nutrients

*DAP and exogenous thiamine

Concentrations

LOW ➝ HIGH

SpringCell
100% yeast-derived detoxifying fermentation aid

SpringFerm™ Complete
Complex nutrient

SpringFerm™ Xtrem
100% yeast-derived nutrient for stressful conditions

SpringFerm™
100% yeast-derived balanced nutrient

ViniLiquid™
100% yeast-derived liquid nutrient

Mineral Nitrogen
*DAP added

Vitamins & Exogenous thiamine

Survival Factors

Detoxification

Organic Nitrogen

SpringCell
Natural yeast hulls are highly efficient as fermentation aids acting against sluggish and stuck fermentation.

- Rich in survival factors and strong detoxifying capabilities to improve yeast viability at the end of fermentation.
- To prevent stuck fermentations (PA>14%) or to clean stuck ferments prior to restarting.
- TTB Limit 3.0 lb/1,000 gal.

**Application:** To be used at 1/3 fermentation. At later stages, as a solution to sluggish or stuck ferments.

**Packaging:** 25 kg bag.

**Recommended Dosage:** 1 – 3 lb/1,000 gal, 10 – 35 g/hL.
**SpringCell BIO**

SpringCell BIO is an organic solution that works well with sluggish and stuck fermentations.

- Use for prevention when the concentration in reducing sugars is important and the must is highly-clarified, or to preserve wine essence by limiting additions of nutrients (especially inorganic).
- Use as a cure when the fermentation is stuck to detoxify the must and for the re-pitching of the yeast starter in good conditions.
- SpringCell BIO is almost 100% insoluble and has a support effect in highly-clarified musts by increasing their turbidity without the organoleptic deviations that can be caused by lees.
- This is the only fermentation activator that can reach a total consumption of sugars in a must whose fermentation is slow, without producing volatile acidity.

**Application:** To be used at 1/3 fermentation. At later stages, as a solution to sluggish or stuck ferments.

**Packaging:** 500 g bag.

**Recommended Dosage:** 1–3 lb/1,000 gal, 10–35 g/hL.

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**SpringFerm™**

Fermentation activator made of partially autolysed yeast, SpringFerm™ brings organic nitrogen (amino acids and small peptides), sterols, minerals & vitamins that are crucial for a complete fermentation.

- Recommended for must slightly deficient in nitrogen.
- Partially autolysed yeast that is 3 times richer in available nitrogen than a basic inactivated yeast.
- 200 ppm of SpringFerm™ brings the equivalent of 10 ppm of yeast-available nitrogen.

**Application:** To be used at 1/3 fermentation and at inoculation for supporting role (lack of turbidity).

**Packaging:** 1 kg and 25 kg bag.

**Recommended Dosage:** 2 – 4 lb/1,000 gal depending on YAN. 25 – 50 g/hL.

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**SpringFerm™ Xtrem**

SpringFerm™ Xtrem is a fully-autolyzed yeast very rich in organic nitrogen specially designed for difficult fermentation conditions.

- Provides amino acids and small peptides, sterols, minerals & vitamins.
- Designed for deficient musts coming from overripe grapes that are often very poor in nitrogen (<150mg/L) and/or rich in fermentable sugars (potential alcohol >14%) which represent a favorable environment for stuck or sluggish fermentations.
- Fully autolyzed yeast, 9 times richer in available nitrogen than a basic inactivated yeast.
- 200 ppm of SpringFerm™ Xtrem brings the equivalent of 10 ppm of yeast-available nitrogen.
- Also recommended for production of organic wines where DAP cannot be used.

**Application:** To be used at 1/3 fermentation.

**Packaging:** 1 kg and 10 kg bag.

**Recommended Dosage:** 2 – 4 lb/1,000 gal. depending on YAN. 25 – 50 g/hL.
Yeast Nutrients

SpringFerm™ Complete
This complex yeast nutrient is an all-in-one product that brings the perfect balance of organic and mineral nitrogen, sterols, detoxification power, minerals and vitamins to your ferment.
• Blend of yeast autolysate, yeast hulls, Thiamine and DAP to facilitate yeast nutrition operations.
• Decreases organoleptic deviation risks (volatile acidity, H₂S) and helps the production of secondary alcohols and their esters.
• 200 ppm of SpringFerm™ Complete brings the equivalent of 17 ppm of Yeast Available Nitrogen.
• TTB Limit 6 lb/1,000 gals.
Application: To be used at yeast inoculation and/or at 1/3 of fermentation.
Packaging: 25 kg bag.
Recommended Dosage: 1 – 2 lb/1,000 gal, 10 – 25 g/hL.

Fermo-Clean
This complex yeast nutrient’s alpha cellulose fibers detoxify or “Clean” the must through the adsorption of medium chain length fatty acids (C6-CB-C10) produced during fermentation.
• Fibers also help provide a support matrix for the yeast, especially critical in highly-clarified juice, such as those processed by centrifuge or where mold/rot conditions existed on incoming fruit.
• Contains many of the necessary nutritional needs of the yeast
Application: Fermo-Clean can be used 24 hours after fermentation has started and if required again at mid-fermentation.
Packaging: 25 kg bag.
Recommended Dosage: 1 – 3 lb/1,000 gal. 10 – 40 g/hL.

Fermo-Start
Designed to assist the rapid activation of the yeast by allowing the yeast to accumulate amino acids.
• The presence of growth factors assures a quick start, without causing an excessive increase in the maximum rate of fermentation and a growing demand for nutritional requirements.
• TTB Limit 2.5 lb/1,000 gal.
Application: Used as a rehydration product or 24 hours after fermentation has started and again at mid-fermentation if needed.
Packaging: 15 kg carton.
Recommended Dosage: 1 – 2.5 lb/1,000 gal, 10 – 30 g/hL.

Thiamine Hydrochloride
Yeast cells grow significantly faster as the result of enhanced utilization of mineral nitrogen in the presence of external sources of Thiamine.
• Particularly beneficial when trying to restart a sluggish or stuck fermentation.
• A member of the vitamin B1 complex group.
• This is the hydrochloride salt form of thiamine, which is water soluble.
Application: Thiamine hydrochloride can be used 24 hours after the fermentation has started and again at mid-fermentation or later stages of fermentation if required.
Packaging: 20 kg carton. Available by special order only.
ViniLiquid

Fermentis’ latest development in yeast nutrition, ViniLiquid is easy-to-use and highly-efficient.

- The innovative high density liquid format allows for easy, accurate dosing as well as immediate and complete integration in the juice/must.
- Total yeast autolysate providing organic nitrogen, sterols, minerals and vitamins.
- Provides greater fermentation power than the equivalent powdered nutrients.
- 50 mL/hL of ViniLiquid brings the equivalent of 20 ppm of Yeast Available Nitrogen.
- Avoids inhalation of dust and safe to handle.
- In order to be classified as “E2U,” a yeast derivative must meet 3 criteria: low risk of inhalation, high wettability, and high dispersibility.

Application: To be used at 1/3 fermentation.
Packaging: 210 kg pumpable box and 12 kg jerrycans.
Recommended Dosage: 2 – 4 lb/1,000 gal, 25 – 50 ml/hL.

Fermentation Optimization with ViniLiquid

Focusing on fermentative power and ease of use, ATPGroup is proud to introduce Fermentis’ latest development in yeast nutrition, ViniLiquid. ViniLiquid is a highly autolysed liquid yeast preparation that allows for easy, accurate dosing and immediate and complete integration in the juice. With no dust or inhalation hazards ViniLiquid is safe to use.

**Figure 1** shows the fermentation kinetic advantage of using ViniLiquid vs. DAP, DAP with oxygen at Vmax, and powdered forms of equivalent nutrition. Using ViniLiquid, fermentations came to a completion over 40% faster than DAP alone, and over 10% faster than equivalent yeast derivative/pure hulls when added in powder form.

**Figure 2** shows the residual sugars at 238h of fermentation. Note the wine fed with ViniLiquid is dry! As shown in Figure 1, this decrease in the amount of time necessary for the fermentation is achieved without a dramatic initial increase in kinetics, so it won’t cause unusual temperature spikes or foaming. The more consistent curve at the end of fermentation is a result of ViniLiquid’s efficiency in promoting cellular regrowth and viability when compared to DAP or powdered nutrients.
Yeast-Derived Functional Products

**SpringArom®**
Inactivated yeast selected for its important reduction potential thanks to its high natural content in Glutathione, an antioxidant tripeptide naturally contained in yeast that prevents oxidation reactions and avoids organoleptic aging.

- Prevent browning and aroma loss in white wine.
- Keep the freshness and improve the mouthfeel.
- Also provides support for fermentation and acts as a light nutrient.

**Application:** To be added after settling and before inoculation for aromatic white wines such as Sauvignon Blanc, Gewürztraminer, Chenin Blanc, Colombard, Riesling and rosé styles.

**Packaging:** 1 kg and 25 kg.

**Recommended Dosage:** 1.5–2.5 lb/1,000 gal, 20 – 30 g/hL.

**SpringCell Manno**
Blend of inactivated yeast and yeast hulls rich in polysaccharides, SpringCell Manno is specifically developed to act on the intensity and the stability of the color of red wines, with long term benefits.

- Polysaccharides help the stabilization of the tannin-anthocyanin complexes and reduces the level of free anthocyanins.
- Significant softening of the most astringent tannins due to the coating action of the polysaccharides on the green tannins. Improves the roundness of red wines.
- Supplies support, organic nitrogen and survival factors which are used by the yeast during fermentation.

**Application:** To be added during primary fermentation or the end of fermentation.

**Packaging:** 500 g packet and 10 kg box.

**Recommended Dosage:** 1.5–2.5 lb/1,000 gal, 20 – 30 g/hL.

**SpringCell Color G2**
SpringCell™ Color G2 is based on years of research to optimize our best seller SpringCell™ Color.

- In order to be classified as “E2U,” a yeast derivative must meet 3 criteria: low risk of inhalation, high wettability, and high dispersibility.
- Made of pure, inactivated yeast rich in polysaccharides.
- It improves the intensity and the stability of the polyphenols in red wines. Brings structure (especially tannins) and mouthfeel to your wine.
- For full bodied, medium to long-aging premium reds.

**Application:** To be added just before inoculation.

**Packaging:** 500 g and 10 kg packet.

**Recommended Dosage:** 1.5–2.5 lb/1,000 gal, 20–30 g/hL.

**SpringCell Manno**
SpringCell Manno is a yeast polysaccharide product giving roundness and mouth-feel directly to the wine.

- Supplies mannoproteins and other polysaccharides, the noblest part of the lees, directly available to the wine.
- Recommended for barrel aged wines in addition or replacement of lees.
- Polysaccharides can coat the most astringent tannins to attenuate the hardness and bring roundness to the wine.

**Application:** Can be added during primary fermentation or the end of fermentation.

**Packaging:** 500 g and 10 kg package.

**Recommended Dosage:** 1.5–2.5 lb/1,000 gal, 20 – 30 g/hL.
Malolactic Bacteria and Nutrients

Malo-Plus
A single-strain Oenococcus oeni specifically selected for its tolerance towards low temperatures, sulfur dioxide and high-alcohol content (16.5% v/v) giving this strain superior fermentation capabilities.
• Results in a highly-active culture which is ready for quick inoculation.
• Suitable for both red and white wines.
• Since wine is a hostile environment, the freeze-dried powder was developed to prepare the Oenococcus oeni cell membrane for this environment.
Application: Can be added towards the end of primary fermentation or after wine has completed primary fermentation.
Packaging: 1,000 gal, 10,000 gal, 50,000 gal and 100,000 gal.
Some sizes special order only.

Malo-D
This diacetyl producing bacteria is designed to contribute complexity to wine aromas as well as softness and richness to the palate.
• Malo-D is a single strain Oenococcus omni specifically selected for its dactyl production.
• Well suited for structured white wines, but can be also used for sparkling and red wine styles.
Application: Can be added towards the end of primary fermentation or after wine has completed primary fermentation.
Packaging: 1,000 gal, 10,000 gal, 50,000 gal and 100,000 gal.
Some sizes special order only.

Malo-Plus HA
Single strain Oenococcus oeni specifically selected for its tolerance towards high acidity content and fermentation speed.
• Suitable for both red and white wines.
• Strong fermenter even at higher alcohol levels (14.5% v/v) and pH tolerant to 3.1.
• Since wine is a hostile environment, the freeze-dried powder was developed to prepare the Oenococcus oeni cell membrane for this environment.
Application: Can be added towards the end of primary fermentation or after wine has completed primary fermentation.
Packaging: 1,000 gal, 10,000 gal and 50,000 gal.
Some sizes special order only.

Malo-Multi
The benefit of this multi-strain bacteria is its ability to highlight the typical aromas of the variety from which it is produced while enhancing complexity.
• In white varietals, it will enhance varietal typicality.
• In red varietals, it will enhance dark berry characters.
• Malo-Multi is a mixed strain Oenococcus oeni consisting of three genetically different strains.
• It is a strong fermenter even at high alcohol levels (16% v/v).
Application: Can be added towards the end of primary fermentation or after wine has completed primary fermentation.
Packaging: 1,000 gal, 10,000 gal and 50,000 gal.
Some sizes special order only.
Malolactic Bacteria and Nutrients

Malo-Vigna

Single strain Oenococcus oeni for use in wines with high structure and alcohol content. It enriches these wines with complex tertiary flavors, harmonizing finesse, and overall elegance.

- Selected from the famous Monfortino vineyard of Giacomo Conterno in Monforte d’Alba, Italy due to its ability to withstand the high alcohol content and tannic composition of these great wines.
- Enriches the wine with intense long-lasting notes that persist throughout the life of aged wine.

**Application:** Can be added towards the end of primary fermentation or after wine has completed primary fermentation.

**Packaging:** 1,000 gal, 10,000 gal, 50,000 gal and 100,000 gal. Some sizes special order only.

<table>
<thead>
<tr>
<th>Genus and Species</th>
<th>Malo-Plus</th>
<th>Malo-Plus HA</th>
<th>Malo-Multi</th>
<th>Malo-D</th>
<th>Malo-Vigna</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metabolism</strong></td>
<td>Heterofermentative</td>
<td>Heterofermentative</td>
<td>Heterofermentative</td>
<td>Heterofermentative</td>
<td>Heterofermentative</td>
</tr>
<tr>
<td><strong>Isolation</strong></td>
<td>Lombardia--Barbera</td>
<td>Lombardia--Chardonnay</td>
<td>Lombardia</td>
<td>Canada</td>
<td>Piemonte--Nebbiolo</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Freeze-dried</td>
<td>Freeze-dried</td>
<td>Freeze-dried</td>
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<td>Freeze-dried</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>• Co-inoculation</td>
<td>• Co-inoculation</td>
<td>• Direct inoculation</td>
<td>• Co-inoculation</td>
<td>Direct inoculation after alcoholic fermentation</td>
</tr>
<tr>
<td></td>
<td>• Late inoculation</td>
<td>• Late inoculation</td>
<td>• Direct inoculation</td>
<td>• Late inoculation</td>
<td>Direct inoculation after alcoholic fermentation</td>
</tr>
<tr>
<td></td>
<td>• Direct inoculation after alcoholic fermentation</td>
<td>• Direct inoculation after alcoholic fermentation</td>
<td></td>
<td></td>
<td>Direct inoculation after alcoholic fermentation</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Cells (billions/hl)</strong></th>
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<th>400</th>
<th>400</th>
<th>300</th>
<th>400</th>
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</thead>
<tbody>
<tr>
<td><strong>ML Fermentation Speed</strong></td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
</tr>
<tr>
<td><strong>Volatile Acidity Production</strong></td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Diacetyl Production</strong></td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Biogenic Amines Production</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Wine Conditions</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>&gt; 3.20</td>
<td>&gt;3.10</td>
<td>&gt; 3.20</td>
<td>&gt; 3.35</td>
<td>&gt; 3.20</td>
</tr>
<tr>
<td><strong>Max. % by Vol.</strong></td>
<td>16.5</td>
<td>14.5</td>
<td>16.0</td>
<td>15.0</td>
<td>17.0</td>
</tr>
<tr>
<td><strong>Total SO₂ Tolerance at pH 3.50</strong></td>
<td>50 ppm</td>
<td>40 ppm</td>
<td>50 ppm</td>
<td>40 ppm</td>
<td>60 ppm</td>
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<tr>
<td><strong>Temperature Range</strong></td>
<td>63-80°F (17-27°C)</td>
<td>63-80°F (17-27°C)</td>
<td>63-80°F (17-27°C)</td>
<td>61-80°F (16-27°C)</td>
<td>63-80°F (17-27°C)</td>
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<tr>
<td><strong>Sensory Expression</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Fruity</strong></td>
<td>+++</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td><strong>Spicy/Complex</strong></td>
<td>+</td>
<td>+</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td><strong>Overall Effect</strong></td>
<td>Enhances varietal characteristics and intense fruit flavors</td>
<td>Slightly less intense than Malo-Plus, used for sparkling wines</td>
<td>The spiciest, with complex notes</td>
<td>Imparts buttery, toasty, and nutty flavors</td>
<td>Imparts complex flavors, finesse, and elegance and is suitable for interaction with wood</td>
</tr>
</tbody>
</table>

Many of the problems often encountered with malolactic fermentation stem from a lack of understanding the proper conditions needed for the bacteria to complete its job.

The real answer lies in understanding the synergistic relationship between the following elements: A) Alcohol (ethanol), B) Temperature, C) pH, D) SO₂ (sulfite), and D) Nutrients and Lees Management.
## Cellar Supplies

<table>
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<th>Section</th>
<th>Page</th>
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</table>
Chemicals

**Activated Carbon**

In wine and juice production activated carbons are often used to remove unwanted taste, odors, haze, color as well as Patulin removal (apple juice).
- When selecting the correct carbon for a given application you should also take into account the raw material, particle size and production method used to produce a given product to improve quality and minimize problems in the production process.

**Application:** Can be added at any stage during winemaking process.

**Packaging:** (Deodorizing) 44 lb bag; (Decolorizing) 40 lb. bag

**Ascorbic Acid**

Ascorbic acid is a powerful anti-oxidant. It can be added to wine at bottling to help protect color from oxidizing and reduce the chances of browning and spoilage.
- Consumes any free oxygen that may be present in wine at bottling.
- Effects are stronger and longer lasting when used in combination with Potassium metabisulfite.
- To be used with adequate free SO₂ present so that any free H₂O₂ is removed.
- Must be used with caution and can react with oxygen to produce Hydrogen peroxide.

**Application:** At any stage during the winemaking process, especially prior to bottling.

**Packaging:** 25 kg carton.

**Bentonite KWK**

Bentonite is a great general-purpose fining agent that is easy to prepare and does not adversely affect wine flavor.
- Used for the removal of unstable proteins in wine and juice.
- Negatively charged clay colloid that reacts with positively charged proteins, precipitating them from the wine.
- KWK bentonite is a fine granular sodium bentonite with an average particle size between 20 and 70 mesh.

**Application:** At any stage during the winemaking process.

**Packaging:** 50 lb bag.

**Bentonite KWK Krystal Klear**

Bentonite KWK Krystal Klear has superior adsorption and clarifying characteristics for use in the clarification of wine, juice or cider.
- Attracts positively charged particles to help settle out proteins that can lead to cloudiness in the bottle.
- Used for the removal of unstable proteins in wine and juice.
- KWK Krystal Klear is a negatively charged clay colloid and reacts with positively charged proteins, precipitating them from the wine.
- Can be rehydrated in either hot or cold water at any stage.

**Application:** At any stage during the winemaking process.

**Packaging:** 50 lb bag.
Bentonite Preparation

Bentonite is hydrated aluminum silicate clay with negative charges. It is added to remove positively charged proteins in wine that affect protein (heat) stability.

**Bentonite KWK Procedure**

1. For small amounts (less than 20 lbs), prepare in 5 gallon buckets, otherwise use 100 gallon mixing tanks or larger tanks with adequate mixing capabilities.
2. Use 1.5 gallons of 100–120° F water per 1 lb of bentonite. (For a 6% solution use 1.5 gallons of water per 1 lb of bentonite.)
3. Prepare slurry by slowly adding bentonite to the hot water while mixing.
4. Avoid making lumps.
5. Let bentonite hydrate for at least 12 – 24 hours before adding to wine.

**Bentonite Krystal Klear Procedure**

1. For small amounts (less than 20 lbs), prepare in 5 gallon buckets, otherwise use 100 gallon mixing tank or larger tanks with adequate mixing capabilities.
2. Ensure that you have high shear mixing capabilities.
3. Use 1.5 gallons of cold water per 1 lb of bentonite.
4. Prepare slurry by slowly adding bentonite to the cold water while mixing.
5. Avoid making lumps.
6. The Krystal Klear should dissolve in 3 – 5 minutes.

The slurry is slowly dosed into the wine while tank is mixing. Use an air pump and 3/4” hose to pump to top of tanks or add using Venturi method. Stir tanks with a Guth and/or pump.

No legal limits on bentonite aside from water restrictions (which is 1% of the wine).

Bentonite may be made in advance and stored depending on conditions of storage. Ideally do not keep unused bentonite slurry for more than 2 weeks, it absorbs odors and can become moldy. This is something which can be monitored visually and organoleptically.

**Recommended Trial Rates**

Prepare a 6% bentonite solution to perform trials.

<table>
<thead>
<tr>
<th>Wine Sample (mls)</th>
<th>6% bentonite solution</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>0.4</td>
<td>1#/K</td>
</tr>
<tr>
<td>200</td>
<td>0.8</td>
<td>2#/K</td>
</tr>
<tr>
<td>200</td>
<td>1.2</td>
<td>3#/K</td>
</tr>
<tr>
<td>200</td>
<td>1.6</td>
<td>4#/K</td>
</tr>
<tr>
<td>200</td>
<td>2.0</td>
<td>5#/K</td>
</tr>
<tr>
<td>200</td>
<td>2.4</td>
<td>6#/K</td>
</tr>
<tr>
<td>200</td>
<td>2.8</td>
<td>7#/K</td>
</tr>
</tbody>
</table>

**General Hints**

When vigorously mixed so that every particle is wetted, bentonite nearly attains its full hydration within 10 minutes.

Always add bentonite to water — not water to bentonite.

Always add the bentonite to water slowly.
Chemicals

**Citric Acid**

Used for acidification in wines that are naturally lacking in acid. Citric acid adds liveliness to the wine and helps to bring out a fresher, fruity citrus note on the palate.
- Should always be added to finished wines and never to unfermented grape juice. Because it can be converted in acetic acid by the action of yeast, resulting in a wine with excess volatile acidity.
- Neutralizes with an acid rinse. (3% w/w citric acid solution.)
- Used for the removal of unstable proteins in wine and juice.

**Application:** Usually added prior to bottling.

**Packaging:** 25 kg (Domestic) and 50 lb bag (Imported).

**Cream of Tartar**

ATPGroup is the only domestic producer of cream of tartar — white crystals or powder — derived from wine lees. Cream of tartar is used to aid in cold stabilization of wine by dosing with high rates of KHT crystals to force precipitation.

**Application:** Usually added prior to bottling.

**Packaging:** 25 kg bag.

**Diammonium Phosphate – DAP**

Diammonium Phosphate (DAP) is a mineral nitrogen source used for yeast viability during primary fermentation.
- Stimulates yeast growth and fermentation activity.
- Helps prevent the formation of hydrogen sulfide.
- Add it to juice or must to supplement natural levels of yeast assimilable nitrogen (YAN) at the beginning of fermentation.
- We also recommend an addition of organic nitrogen sources (SpringFerm™) for its vitamins and minerals.
- Readily soluble in water and can be added directly or as aqueous solution.

**Application:** Added at beginning of fermentation and again at mid-point if needed.

**Packaging:** 25 kg bag and 50 lb bag.

**Fumaric Acid**

Widely found in nature, fumaric acid is the strongest organic food acid and will produce similar effects as tartaric or citric acids at lower addition rates. Presence in a lower pH environment will yield a persistent, long-lasting crispness.

**Application:** Can be added at any stage of the winemaking process.

**Packaging:** 25 kg bag.
Malic Acid
Malic acid is one of the two main acids found in grapes and is used to adjust acidity when the winemaker prefers its sensory contribution to a particular wine style.
- The decrease in pH will not be as great as with the use of tartaric acid.
**Application:** Can be added at any stage of the winemaking process.
**Packaging:** 25 kg and 50 lb bag.

PVPP-V – Polyclar V
Polyclar PVPP-V is a highly effective 100% PVPP wine stabilizer with an average particle size of 25 microns.
- Optimized for maximum, fast-acting reduction of polyphenols, such as the leucoanthocyanadins and catechins that may cause “pinking” and “browning” through oxidative polymerization.
**Application:** To be added at any stage of the winemaking process.
**Packaging:** 44 lb drum.

PVPP-VT – Polyclar VT
Polyclar PVPP-VT is 100% PVPP with an average particle size of around 110 microns designed for addition to vessels where faster settling is required.
- Primary function is to remove phenolic compounds from white wines.
**Application:** To be added at any stage of the winemaking process.
**Packaging:** 44 lb drum.

Potassium Benzoate
Generally used with sweet wines and sparkling wines, but may be added to table wines which exhibit difficulty in maintaining clarity after fining.
- Can be added at any stage but usually used when active fermentation has ceased and the wine is racked for the final time after settling.
- Potassium Benzoate is a white crystal or granular and is soluble in water and wine.
- Can be used as an alternative to Sodium Benzoate.
**Application:** Added at any stage of the winemaking process but usually immediately prior to bottling.
**Packaging:** 50 lb bag.

Potassium Chloride
An alternative to Sodium Chloride to be used in water softening units.
**Application:** Water treatment units.
**Packaging:** 40 lb bag.
Chemicals

**Potassium Carbonate**
Used for the deacidification of juice or wine. Potassium Carbonate can be added at any stage of the winemaking process, but most commonly used for raising the pH and lowering the TA of the juice prior to fermentation. The result can be a more efficient fermentation and can improve acid balance in the resultant wine.
- Treating the juice has the least detrimental effect on the sensory characteristics of the wine.
- Other names: Potash; Pearl Ash.
**Application:** Can be added at any stage of the winemaking process.
**Packaging:** 25 kg and 50 lb bag.

**Potassium Metabisulfite**
Potassium metabisulfite is used in must or wine to prevent oxidation and/or spoilage. It can be used both in a powder or liquid form to sprinkle over grapes prior to crushing.
- Its action in water inhibits harmful bacteria through release of sulfur dioxide.
- It can also be used as an antiseptic agent to sanitize tanks, lines and pipes.
- Note: Its strength is about 17% greater than Sodium Metabisulfite and should be mixed accordingly.
**Application:** Can be added at any stage of the winemaking process.
**Packaging:** 1 kg (Seasonal) and 25 kg bag.

**Potassium Sorbate**
Potassium sorbate arrests fermentation and is used as an additive before bottling to prevent re-fermentation in the bottle. It does not kill yeast and therefore is not a fungicide, but prevents fermentation by interfering with the metabolism of the yeast.
- Its properties are dependent on the combined presence of sulfur dioxide, alcohol, and acidity.
- Other names: Potassium-2, 4-hexadienoate.
**Application:** Should be added just prior to bottling.
**Packaging:** 50 lb box.

**Propylene Glycol – Inhibited**
Inhibited Propylene Glycol is an inhibited industrial coolant and heat transfer agent.
- It is free of suspended solids and is colorless and odorless.
- Inhibitor system is designed to protect brass, copper, solder, steel, cast iron aluminum and other metals commonly found in industrial cooling and heating systems.
- 96% Propylene Glycol.
- Other names: Propane-1,2-diol; 1,2-Propanediol.
**Application:** Contact ATPGroup Sales Representative for recommended dilution rates.
**Packaging:** 55 gal drum.
Filtration Aids

Bio-Cool Inhibited Propanediol
Bio-Cool is a high-performing, food-safe alternative to conventional glycols for low-temperature head-transfer applications in white, beer and food industries.
• USDA BioPreferred® designation.
• Made from renewable plant-based source, green technology.
• Saves 10%–12% on energy costs over traditional propylene glycol.
• Reduces wear and tear on cooling equipment.
Application: For use in low-temperature heat-transfer applications in chillers to replace or use with propylene glycol.
Packaging: 55 gal drum.

Sorbic Acid
Sorbic acid is often used in sweet wines as a preservative against fungi, bacteria and yeast growth.
• The antimicrobial action of sorbic acid is used primarily against yeasts and molds.
• Must and wine-related yeasts inhibited by sorbic acid include species of genera Brettanomyces, Candida, Hansennla, Pichia, Saccharomyces, Torulaspora and Zygosaccharomyces.
Application: At any stage during the winemaking process, especially prior to bottling.
Packaging: 25 kg bag.

Tartaric Acid USP / FCC
Tartaric acid increases color intensity and hue, improves flavor profile and enhances aging potential. Tartaric acid inhibits reactions associated with oxidation/microbial spoilage.
• ATPGroup is a world leader in providing highest-quality tartaric acid to food and beverage industries.
• 100% derived from grapes.
• Reduces the pH and increases titratable acidity.
• Low pH conditions — increases the sulfur dioxide effectiveness.
Application: Can be added at any stage of the winemaking process.
Packaging: 25 kg bag and 1,000 kg super-sack.

Diatomaceous Earth (DE)
Diatomaceous earth (DE), Celatom, by EP Minerals, is a filtration media composed of microscopic diatoms silica structures millions of years old. DE is used in the beer and wine industries as an extremely effective economical filtration media to facilitate liquid-solid separating. DE’s uniquely strong cylindrical geometry shape and its high-pore volume and low resistance to flow, make it the go-to filter medium.
• Diatomite has been used as a filter aid for nearly a century.
• The ore is a soft, friable siliceous mineral composed of the skeletal remains of microscopic plants deposited on the bottoms of oceans and lakes during the Miocene Age.
• Diatomaceous earth is amorphous silica with varying particle shapes and has the ability to form highly permeable, but rigid and incompressible filter cakes, which translates into efficient and economical filtrations.
Application: Two-step operation; first added as a protective layer (precoat), and then to maintain porosity (body-feed in pressure filters).
Other name: DE.
Packaging: 50 lb bag and 1,000 kg super sack.
Filtration Aids

Perlite
Perlite is a lightweight, expanded bubble structure derived from volcanic glass that’s milled and classified into powders that are used in both pressure and vacuum filtration equipment. Perlite filter aids are inert and will impart no taste or odor into wine, and are virtually insoluble in mineral and organic acids at all temperatures.

- Perlite is the generic name for a naturally occurring siliceous volcanic rock.
- Perlite is an amorphous material, without crystalline particles, i.e. does not require a carcinogenic label.
- Designed for use in any diatomite or powder type filtration system, i.e. both pressure and vacuum filtration equipment.
- Particularly well-suited for vacuum systems since it is resistant to pre-coat cracking.
- Results in Low Soluble Metal in the finished juice/wine.
- Various grades are available — speak with your ATPGroup Sales representative about your particular application.

Application: Usually added as a filtration aid during filtration or as a pre-coat at the start of the filtration cycle.
Packaging: 25–35 lb bag depending on grade.

Transcend Filtration Media
Transcend is a revolutionary patented diatomaceous earth filtration media that is crystalline silica free. In addition to the safety benefits, Transcend has the same great filtration capacity as standard DE and is easier to use than Perlite, with longer run times, increased throughput and decreased wine losses.

Packaging: 50 lb bag.

Fiber Floc 10 and 30
Chemically inert complex filter aids which are used in the formation of pre-coats for continuous dosing filtrations. Fiber Floc is specifically formulated to contain highly-purified alpha cellulose and cotton fibers in addition to perlite.

- Fiber Floc 10 is recommended for primary filtration.
- Fiber Floc 30 is recommended for polish filtration.

Application: Usually added as the initial pre-coat then followed by either DE or Perlite.
Packaging: 35 lb bag.
Eaton is a leading supplier of complete depth filtration solutions. They are known around the world for developing, manufacturing and distributing high-quality depth filtration media for use in the production of wine, beer and other beverages.

Eaton’s BECO® Depth Filter Sheets are manufactured with finely-fibrillated cellulose fibers that are combined with filtration-active components. The BECOPAD® Depth Filter Sheets are constructed of high-purity cellulose fibers without any additional mineral components.

BECO® Depth Filter Sheets are available in multiple grades for coarse, clarifying, and fine filtration. They’re particularly suitable for removal of particles and colloids contained in gross solids as well as yeast and bacteria in preparation for sterile membrane filtration.

ATPGroup is proud to be the exclusive distributor to the North American wine industry of these fine, high-quality filters.

**BECO® Stacked Disc Cartridges**

The individual cartridge cells are comprised of BECO Filter Media. The outer edge of two of these depth filters, whose outlet side is in contact with a drainage plate, is coated with polypropylene and sealed. Depending on the cartridge type, a different number of stacked filter cells forms a cartridge unit, which is safely held together by the three-part segmented sleeve made from stainless steel. Sealing between the filter cells is done by accurately fitting intermediate profile rings. When installed, the segmented sleeve made from stainless steel ensures excellent mechanical sealing of the module. The occurrence of bypass effects is therefore eliminated.

**BECODISC®**

BECOPAD Mineral-free depth filtration Stacked Disc Cartridges support a wide range of applications, including coarse and pre-sterile filtration of all liquid media.

- Available in 12” x 16” cell providing 20.5 ft² surface area.
Filtration Media

**BECO® MEMBRAN PS Wine Cartridges**

Winemakers give special attention to the color, flavor and aromas in the production of their wines. Filtering in the final stages is an important step to ensure microbial stability. Eaton’s BECO MEMBRAN PS Wine membrane filter cartridges are designed specifically for reliable removal of spoilage microorganisms in still wine and sparkling wine. BECO MEMBRAN PS Wine filter cartridges are constructed using robust polyethersulfone membrane material, polypropylene support fleeces to protect the membrane, and a polypropylene cage and core that helps to ensure maximum mechanical stability.

**Characteristics and Advantages:**
- The asymmetric polyethersulfone membrane provides high microbiological retention and reliable integrity testing.
- The high filter area 25.2 ft² per 30” cartridge along with the asymmetric membrane structure of polyethersulfone offers high flow rates and outstanding service life.
- The special design allows for 72.5 psi (5 bar) differential pressure in the direction of flow and 29 psi (2 bar) differential pressure in reverse to support maximum throughputs.
- The high thermal stability allows more than 100 steam sterilization cycles and hot water sanitation max temp of 194∞F.
- Broad chemical compatibility.
- Available in 0.45 and 0.65 μm, code 7 and length of 30” (750 mm).
- Full maintenance of valuable flavor and color in wines.

**BECO PROTECT® FS**

BECO PROTECT FS FineStream depth filter cartridges are innovative cartridges with a unique design of specially pleated polypropylene fleeces with a larger filter surface area and depth that supports particle retention capacity, thus an increased membrane filter service life.

**Features and Benefits:**
- High retention for a reliable separation effect, Beta Ratio ≥ 5000 or ≥ 99.98% efficiency for defined particles.
- Outstanding protection for subsequent membrane filtration due to fine, new filter material (by 0.2 μm - Type).
- Self-supporting pleats ensure excellent backflush capabilities. Backflushable up to 29 psig (200 kPa, 2 bar) at 176∞F (80∞C).
- High chemical resistance due to 100% polypropylene materials.
- The high thermal stability allows steam sterilization and hot water sanitation max temp of 194∞F.
- Red bayonet tip easily distinguishes it from the final filter.
- Available in 0.5, 0.6, 0.8 and 1.0μm, code 7 and length of 30” (750 mm).
- Full maintenance of valuable flavor and color in wines.
**BECOPAD® Depth Filter Sheets**

BECO Depth Filter Sheets were developed to meet demanding liquid filtration requirements. The product range covers retention grades between 5.0 and 0.2 microns. Finely fibrillated charged cellulose fibers form the matrix of the BECO Depth Filter Sheets.

**Specific advantages of the BECOPAD Depth Filter Sheets:**

- Ideal pore structure for reliable retention of the solids to be separated.
- Highest quality raw materials guarantees high clarification performance.
- Economic life of sheets through high solids holding capacity.
- High microbiological retention rates due to the defined pore matrix.

*Conditions:*

△ p-100kPa (1 bar), medium; water at 20°C (68°F)
BECOPAD®

BECOPAD is a new mineral-free (with no DE or perlite) depth filtration media containing only purified cellulose fiber. BECOPADs are characterized by their unparalleled purity when compared with conventional filter sheets. With very low extractable ions, these pads will not impart undesirable taste in your product.

**BECOPAD advantages:**
- Mineral-free.
- 20% greater throughputs.
- Flushing volume reduced by 50%.
- Drip losses reduced by 99%.
- Extremely high LRV retention values.
- Biodegradable.
- Pads are available in various grades and sizes.
- Higher wet strength than conventional sheets.

*Conditions:
- p-100kPa (1 bar), medium; water at 20°C (68°F)
Cleaning and Sanitation

A comprehensive Cleaning and Sanitation Program plays a vital role in any winery or juice production facility by reducing incidences related to contamination, ultimately contributing to the quality of the wine or juice and improving your bottom line.

Compliance with the Food Safety Modernization Act (FSMA) is now required for all wineries, and an important part of meeting that requirement is having an effective cleaning and sanitation program.

ATPGroup’s Cleaning and Sanitation Program was purposefully designed for the wine and juice industries, offering superior products, on-site training, and many labor-reducing programs. Our longevity in both industries, combined with our team’s FSMA expertise, makes us uniquely qualified to develop a comprehensive solution that brings you the best in cleaning and sanitation practices and, at the same time, making employee safety paramount.

We understand that no two facilities are alike and will partner with you to develop a customized program that incorporates innovative cost-saving products, SOP design support, efficiency planning, inventory management, safety monitoring, eco-friendly practices and reduced water usage.

For more information, please contact your ATPGroup representative.
ATPGroup carries a broad portfolio of products that can assist winemakers in making exceptional wine. However, that’s only part of the service that ATPGroup offers wineries. In addition to our wide range of cellar supplies, enology products and equipment, we also provide a team of industry veterans who truly understand the many hurdles faced by winemakers in today’s ever-challenging environment.

Whatever the wine, the winemakers we have on staff adopt a hands-on approach, working with our customers and providing advice in the following areas:

- Yeast strain selection.
- Fermentation management.
- Setting up and interpreting fining trials.
- Tannin trials.
- Blending and pre-bottling adjustments.
- Treatment options.
- Micro-oxygenation trials.
- Or, in some cases, just offer an opinion.
Post-Fermentation Tannins – Red Wines

Tannins for use in winemaking after primary fermentation are generally used for two main purposes. These are to improve structure and texture or to mask green characteristics and improve aromatic complexity.

ATPGroup’s range of post-fermentation tannins provides a winemaker’s ultimate “spice rack” for helping define style and maximize quality.

**Finishing Tannins**

As the name implies, ATPGroup’s Finishing Tannins are intended to put the final touches on wines pre-bottling. Mainly for improving aromatic complexity with vanilla, mocha and sweet oak toast characteristics these tannins can also help round out the palate and enhance the antioxidant capacity of a wine.

**Micro-Oxygenation**

For applications involving micro-oxygenation, ATPGroup’s Tani-Structure and Tani-Complete are well suited for palate enhancement and masking green character independently or in conjunction with oak chips.

**Maturation Tannins**

Maturation or aging tannins are usually comprised of grape-derived (Tani-Grape) or blended tannins intended to improve the mouthfeel of a wine with three or more months of aging remaining. These tannins are designed to enhance the overall structure of a wine or to improve texture by rounding out specific “holes” in the palate.

Other benefits of using maturation tannins are their effect as antioxidants and their role in protecting color.

*(As with all products for use on finished wine, we strongly recommend bench trials to determine the effective dose for your desired style. For assistance choosing an appropriate Post-Fermentation Tannin, please contact your ATPGroup Enology Products Specialist.)*
Fermentation Aids Protocols

Evaluate Your Yeast Needs

- Total amount of YAN needed in mg/L: concentration of sugar (g/L) x Ratio for selected yeast (mg/g). Please refer to the yeast information table.
- Evaluate the YAN to be added = total YAN needed – initial YAN must.
- Position your fermentation between the two scenarios in the following table:

Your Nutrition Program

<table>
<thead>
<tr>
<th>Moment of addition</th>
<th>Before yeast inoculation</th>
<th>At yeast inoculation</th>
<th>At 35–45% of the sugar consumed</th>
</tr>
</thead>
<tbody>
<tr>
<td>YAN to be added (mg/L)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;40 ppm of YAN</td>
<td>SpringCell Color or G2 (optional for reds)</td>
<td>Ø</td>
<td>- SpringFerm</td>
</tr>
<tr>
<td>&gt;40 ppm of YAN</td>
<td>SpringArom (optional for whites and rosés)</td>
<td>Supply ½ YAN to be added:</td>
<td>Supply ½ YAN to be added:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- under mineral form (DAP)</td>
<td>- SpringFerm Xtrem or ViniLiquid (up to 40ppm YAN)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- DAP if needed (above 40ppm YAN)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- SpringCell for potential alcohol &gt;14% for difficult fermentations</td>
</tr>
</tbody>
</table>

Oxygen supply management: 10mg/l oxygen supply or at least a pumping over with full aeration is needed after 25% of the sugar consumed.

Dose Calculation Instructions:

- Before inoculation add 30 g/hl of Springcell Color to favour the stabilization of the color and to improve the roundness perception if needed.
- Before inoculation add 10-30 g/hl of Springarom (preferred for aromatic whites) to improve turbidity or preserve aromas and prevent oxidation.
- YAN adjustment at yeast inoculation with DAP considering that 10g/hl DAP supplies 20ppm of YAN.
- YAN adjustment at 35-45% of the sugar consumed considering that 40g/hl Springferm, 20g/hl Springferm Xtrem or 50ml/hl ViniLiquid supply 20ppm of YAN. Over 40ppm of YAN supply needed, complete with DAP.
- Add 20 g/hl of Springcell during the second YAN adjustment if the potential alcohol (PA) is >14% (23°Bx).
- Alternatively use Springferm Complete as a single nutrient (organic and mineral nitrogen) with slit additions at yeast inoculation and 35-45% fermentation, knowing that 20g/hl of Springferm Complete supplies 17ppm YAN eq.

Example:

Must at 25 Bx= 280g/l sugar, initial YAN = 120 mg/L, PA: 14.5%. Yeast HD S135.
- AN needed to complete fermentation= 0.7*280 ~ 200ppm. YAN to be added= 200-120 = 80ppm.
- Amount of YAN to be added at yeast inoculation: ½ x 80ppm = 40ppm, i.e. 20g/hl DAP.
- Amount of YAN to be added at 35–45% of the sugar consumed: ½ x 80ppm = 40ppm, i.e. 40g/hl Springferm Xtrem or 100ml/hl of ViniLiquid (max dosage recommended).
- Springcell at 35–40% sugar consumed: 20g/hl.

Note concerning TTB regulations: All products recommended by Fermentis are fully-authorized per 27 CFR 24.246 prior to and during fermentation. Dosage limits may apply. Information contained in this protocol is considered accurate to the best of our knowledge at the time of revision.
Rehydration of Yeast

The steps below are a general outline for rehydrating yeast. Please also check the yeast manufacturer’s recommendations and protocols.

**Dosage Rate**
- Determine the total volume of juice/must to be inoculated.
- Determine the volume of yeast required for the volume to be inoculated. The rate of inoculation is usually provided by the manufacturer specific to every yeast strain. As a guideline the recommended rate for still wine is typically 2 lbs/1,000 gallons (or 20 g/hL).

**Easy 2 Use Yeast**

The name says it all: Fermentis’ E2U™ are “Easy to Use,” helping you preserve or improve the quality of your wines with products that are less demanding, require less water and energy, and positively impact your bottom line. With E2U™, you can save time by skipping the rehydration step and adding it directly to the must, while it can also be used with rehydration and acclimatization, or with rehydration in tap water when those methods are preferred. Extensive testing on each E2U™ strain concluded that even without rehydration, all expected results were achieved: fermentation performance, delivery of flavors and aromas, expected color, and desired degree of alcohol. Whether you choose to rehydrate or not is no longer a matter of efficiency, it’s now a matter of preference.

**With prior rehydration**
- Gently pour the desired quantity of yeast into 10 times its weight of chlorine-free tap water at 30–35°C (85–95°F) in a wide vessel. Cover all the water surface area by creating a thin layer of yeast.
- Let rest for 20 minutes.
- Gently stir to complete the yeast rehydration and avoid the formation of clumps.
- Slowly double the volume of the yeast suspension by adding must from the tank while stirring in order to decrease the temperature of the yeast starter and to start the activation of the yeast.
- Let rest for another 10 minutes.
- Homogenize and incorporate yeast starter to the must during pumpover with aeration.
- Rehydration in water. Note that when rehydrating in water, the yeast must rehydrate in the water for at least 10–15 minutes for optimal performance.

**Direct inoculation:**
- Pour the yeast on the surface of at least 10 times its weight of must (directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps.
- Immediately transfer into the tank via pumpover with aeration (or homogenize tank volume).
**Addition Volumes for Trials using a 5% Solution**

<table>
<thead>
<tr>
<th>DOSAGE ppm</th>
<th>lbs/1,000 gal</th>
<th>SAMPLE VOLUME, mL</th>
<th>250</th>
<th>375</th>
<th>400</th>
<th>500</th>
<th>750</th>
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<tr>
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<td>0.16</td>
<td>0.20</td>
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<td>0.30</td>
<td>0.45</td>
<td>0.48</td>
<td>0.60</td>
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<td>0.64</td>
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<td>3.20</td>
<td>4.00</td>
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<td>8.00</td>
</tr>
</tbody>
</table>

Notes: 5% Solution = 2.5g powdered product dissolved in 50mL distilled water. Some products may not completely dissolve. It is, therefore, recommended mixing between additions. (100ppm = 0.100g/L = 0.834 lbs/1,000 gals.)

Other dosage rates can be calculated using this formula:

\[
\text{Volume of solution in mL} = \frac{(\text{Desired dosage in ppm}) \times (\text{Volume of wine sample in mL})}{\text{Concentration of solution in ppm}}
\]
Restarting a Stuck Fermentation

Early intervention in stuck fermentations is essential to minimize any impact on wine quality. To avoid the possibility of oxidation or spoilage organism growth and the subsequent decline in quality, it is also critical to restart using a proven protocol and powerful restart yeast.

We recommend Lessafre’s SafOeno BCS-103 for restarts. This Easy to Use™ x. bayanus strain is fructophilic and highly-tolerant of stress factors present in stuck fermentations, including alcohol up to 18%+.

The restart method outlined below is well suited to restarting most stuck fermentations, and ATPGroup’s team of experts is always available to help adjust the protocol to your specific conditions.

Treatment of Stuck Wine

Recommended treatment of the wine prior to inoculation of the yeast starter:

**Objective:** Remove any toxic byproducts.
- Rack the wine (with aeration if red wine) off the lees (press reds if still on skins).
- Add 25–35ppm SO₂ and 0.8 lb/1,000 gal of Lysozyme (Vin-Lyso).
- Add 3 lb/1,000 gal of yeast hulls (SpringCell) and 8.3 lb/1,000 gal of cellulose if possible.
- Mix gently and wait for 1–2 days.
- Rack (or filter if more practical) under a carbon dioxide or argon layer to avoid oxidation and wait for the preparation of the yeast starter.
- Add 1.7 lb/1,000 gal of SpringFerm + 1.7 lb/1,000 gal of DAP just prior to inoculation of yeast starter.

**Preparation of Yeast Starter**

*Rehydration procedure:* Follow the instructions on the data sheet, use chlorine-free water at 98°F.

(Continued on next page)
Add to the 3 gallons of the rehydrated yeasts:
- 2 gal of stuck wine treated per above protocol (but before addition of activator).
- 4 gal of chlorine free water at 77–86°F.
- 8.3 lb of sugar (or equivalent amount with concentrated grape juice).
- 0.05 lb of SpringFerm Complete or 0.025 lb SpringFerm + 0.025 lb DAP.
  - Measure initial °Brix.
  - Wait for 40% of the sugars (or °Brix) to be consumed.

**Acclimatizing Stages (68 – 77°F)**

*First step: (50 gallons)* Add to the yeast starter:
- 10 gal of the previous solution.
- 26 gal of stuck wine.
- 12 gal of chlorine-free water at 68 – 77°F.
- 16.6 lb of sugar (or equivalent amount with concentrated grape juice).
- 0.25 lb of SpringFerm Complete or 0.125 lb SpringFerm + 0.125 lb DAP.
  - Measure initial °Brix.
  - Maintain at 68 – 77°F.
  - Wait for 40% of the sugars (or °Brix) to be consumed.

*Second Step: (100 gallons)* Add to the previous 50 gallons:
- 50 gal of treated wine.
  - Measure initial °Brix.
  - Maintain at 68 – 77°F.
  - Wait for 40% of the sugars (or °Brix) to be consumed.

**Inoculation of Yeast Starter**

Inoculate the yeast starter into the already treated stuck wine during pump over with aeration (T~68°F).

---

**Dosage of BC S103 yeasts:**

<table>
<thead>
<tr>
<th>BRIX REMAINING</th>
<th>DOSAGE (LB/1,000 GAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;3</td>
<td>2.5</td>
</tr>
<tr>
<td>&lt;3</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Gentle stirring.
Wait 20 minutes.

**Yeast Starter (maintain constant temperature between 68 – 77°F)**

Add to the 3 gallons of the rehydrated yeasts:
- 2 gal of stuck wine treated per above protocol (but before addition of activator).
- 4 gal of chlorine free water at 77–86°F.
- 8.3 lb of sugar (or equivalent amount with concentrated grape juice).
- 0.05 lb of SpringFerm Complete or 0.025 lb SpringFerm + 0.025 lb DAP.
  - Measure initial °Brix.
  - Wait for 40% of the sugars (or °Brix) to be consumed.
Red Wine Aging with Micro-Oxygenation and Oak Alternatives

Before Harvest
Describing the Wine Profile
Before purchasing the oak, and in order to be prepared to micro-oxygenate (MOX) a wine as soon as possible, it’s important to define the key characteristics of the wine we will make:
- Oak Profile: % New barrel equivalent, French/American, toast type.
- Flavor Profile: Compatibility oak/fruit profile.
- Color: type of color (dark red, ruby, etc.).
- Wine cycle time: Time between harvest and release to market. This will define the type of tannin we want:
  1. Tannin that can age.
  2. Tannin which softens rapidly for a quick integration.

The wine description will help future decision making, since the future tasting will be focused only on these components. It will facilitate the selection of treatment and enable an early start.

Before Alcoholic Fermentation
Early addition of oak alternatives will help in the structure of the wines: in particular the tannin profile.
- Knowledge of grapes from previous years will show benefits of using early oak additions in certain lots.
- Since the extraction time will be limited to the fermentation period, we need to focus the usage and type of oak products to those which have a quick extraction.
  1. So only pumpable-size products are used (i.e. shavings and powder).
  2. Untoasted or light toast are preferred to focus on tannin contribution only.
  3. Higher toast oak can be used to boost the aromatic components.

During Alcoholic Fermentation
MOX can be used early in the fermentation phase to increase yeast survival rates at the end of the fermentation. A 10mg/L addition around 18–19 Brix will increase the yeast population substantially and limit the potential for stuck fermentations.
After Alcoholic Fermentation, Phase 1 MOX
First step is selecting good wine candidates, MOX will help wines that need color stabilization, have un-mature tannin structure and that need to cover green flavors.

As soon as red wines are pressed, phase 1 MOX can be started. This phase is key, since tannins are highly reactive, so large amounts of oxygen can be added. The window is short, since it is before the start of the malolactic fermentation (MLF).
- Doses of 20 to 60 mg/l/month could be used.
- Wine should be carefully monitored with tastings 2 – 3 times per week.
- If acetaldehydes are tasted, the doses should be reduced. At this stage acetaldehyde is of limited concern since there are two strongly reduced phases that will occur after MOX, MLF and SO₂ additions.
- Doses should be gradually decreased.
- MOX should be stopped during MLF to limit microbiological risks. MOX should also be stopped after high additions of SO₂ since Micro-Oxygenation requires relatively low concentrations of SO₂ to be effective. (Sometimes Lysozyme or small doses of sulfur could be added to increase the time window of treatment.) During this phase, clarification of wine is important.
- Aromas, colors and tannins could bind with the fermentation lees that are not settled.
- Separating solids helps avoid aroma losses, color losses and reduced hydrogen sulfide (H₂S) characters.

After Malolactic Fermentation
Both oak alternatives and MOX could be used during the same time period. It may be beneficial to do it in two different tanks, one tank (biggest volume) focusing on MOX and another tank with an oak concentrate.

MOX in Phase 2
Doses start lower; 2–5 mg/L/month and should be reduced gradually (in a barrel doses are less than 1mg/L/month).
- The treatment phase may take several months.
- Careful monitoring of the wine by tasting and measurement of Dissolved Oxygen (DO) weekly is recommended. If hints of oxidation or a DO variation of 0.2mg/L occur, doses should be reduced. No acetaldehyde smell is acceptable in this phase since the wine won’t go through another strongly reduced phase post MLF inoculation or initial SO₂ additions.
- MOX is preferably stopped 2 months before bottling in order to track any possible reductive (H₂S) characters.

Oak Alternatives
Additions of staves: For 6 months approximately to extract all the wood compounds,
- Chips addition: 12 months approximately to extract all the compounds.
- Shaving and powder: 1 – 2 weeks approximately.
- For the chips and staves, it is important to monitor the extraction in order to transfer the wine when the desired oak profile is achieved.
- For chips, shavings and powder, bench trials should be performed to understand the effect and adjust the quantities added in tank.

Before Bottling
A month before bottling, some final minor adjustments could be made to readjust the wine profile.
- If the wine is reduced: addition for a short period of time of 2 to 10 mg/L of O₂ to oxidize the sulfur compounds can be beneficial.
- If oak flavor needs to be enhanced, a final addition of powder or shavings could be added to readjust the oak flavor levels.
The basics for making wine have gone unchanged for hundreds, if not thousands, of years.

However, today, technology is allowing winemakers to not only make more and more wine, but better wine than ever before.

It was because of this advancement in the industry that ATPGroup formed the Applied Technologies and Process Division (ATPD).

The mission of ATPD is to guide the winemaking industry through this ever-changing landscape by offering all wineries expertise on how to take advantage of the many ongoing innovations, products, practices and services being introduced to the wine industry on a nearly daily basis.

The ATPD team is made up of industry specialists that are solutions experts in wine-processing equipment, footprint analysis, streamlining workflow processes, business modeling for ROIC, capital preservation, long-range capital planning, as well as buy-side mergers and assistance in acquisitions.

Here’s what you can expect from ATPGroup’s Applied Technologies and Process Division:

• ATPD draws on decades of winemaking experience and technical experts possessing a knowledge base of impressive breadth to provide real world experience and best practices to client engagements.

• We offer time-tested leadership in business and technology to wineries seeking to become safer, more efficient and more environmentally sustainable.

• Our science department within the ATPD organization can offer science-driven innovation and history of problem-solving success to address your particular need or situation.

• ATPGroup’s ATPD division offers customized solutions across numerous areas of excellence:
  ▪ Workplace safety.
  ▪ Employee training programs.
  ▪ Environmental management.
  ▪ Energy efficiency.
  ▪ Asset productivity.
  ▪ Foot print analysis and planning.
  ▪ Short and long range capital planning and effectiveness.
  ▪ Strategy development and implementation.
  ▪ Operational risk assessment.

All of this doesn’t change the basics for making wine.

It still demands your time and attention, but you can count on us and our expertise to help you make what you make better.
## Equipment

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<th>Page</th>
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<td>74</td>
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TMCI Padovan

TMCI Padovan has been creating, designing, and producing innovative solutions for winemakers for more than 100 years and is known throughout the global wine world for its high-quality winemaking equipment and expertise in the filtration and thermal exchange of must, wine, and grape juice.

Their commitment to research and development has enabled their team to design a wide range of equipment and systems that function both with and without the use of any filtration aids.

From traditional filtering methods to the more innovative tangential filtration process, a process that doesn’t require the use of filtering panels or sheets, they offer the finest equipment available today.

ATPGroup is proud to partner with TMCI Padovan as its exclusive distributor in North America.

TMCI Padovan Dynamos Cross-Flow Filter System

The Padovan Dynamos Cross-Flow is a patented, rotating, high-solid filter with an innovative calibrated back-pulse system. Its patented system allows filtering not only lees, but also wines, with optimal results, even better than the ones obtained with tubular filters. Unlike other high-solids, cross-flow systems, the Dynamos system can run up to 24 hours before it needs to be cleaned.

(Available from 2 m² to 40 m² and multiples.)

- Eliminates the need to use filter aids such as D.E. for lees filtration.
- Solids-free juice and wine lees can be bottled directly as with a traditional cross-flow filtration system.
- It can be used to polish wine that has been racked and is relatively low in suspended solids.
TMCI Padovan

TMCI Padovan Nitor SMART Cross-Flow Filter

The Padovan Cross-Flow Nitor SMART Filter is the solution for cross-flow filtration where space is at premium despite its compact dimensions, thanks to its large filtering surface. (Available as 40 m² or 80 m².)

- Extremely compact yet fully automatic.
- Micro-filtration membrane for preparation prior to bottling.
- Inert gas sparging with no significant oxygen pick up.
- Compact integrated automatic CIP system.
- Automatic flow and integrity testing of membranes.
- Allen Bradley PLC system standard, with customization available.
- Unique membrane design provides superior life.

TMCI Padovan Nitor CA XL Series Cross-Flow Filter

The Padovan Nitor Cross-Flow Filter is made of stainless steel and is equipped with a service tank, feed-boost circulation pumps, control instruments and is fully-automated. The programmable back-wash system makes it possible to achieve a higher constant filtration level with prolonged filtration cycles. (Available from 160 m² up to 480 m².)

- Micro-filtration membrane for preparation prior to bottling.
- Inert gas blanketing during filtration.
- Automatic flow and integrity testing of membranes after cleaning.
- Optional in-line turbidity monitoring, batch processing and tank management.
- Low product losses.
- Modular design allows for split capacity filters.
- Ability to expand for future growth by adding additional banks of membranes.
**TMCI Padovan Taylo Vacuum Filter**

The Padovan Taylo Rotary Vacuum Filter is a new generation of rotary vacuum filters that allows for the heavy filtration of musts and juices, as well as the filtration of lees and residual bottoms.  
(Available from 3 m² to 70 m².)

- All stainless steel and Nortex construction.  
- Centrifugal pump for pre-coating.  
- Reversible positive displacement pump for feeding lees.  
- Inverter controlled drum rotation with automatic knife advance.  
- Water-cooled vacuum pump with available recycling system.  
- Drum design is simple to maintain and sanitize.

**TMCI Padovan Green Leaf Filter**

The Padovan Pressure Leaf Green Filter has filtering plates configured in horizontal positions which allow for a more uniform pre-coat on each of the filtering septums and is capable of rough or polished filtration.  
(Available from 2 m² to 80 m².)

- Designed to be highly-sanitary and easy to clean.  
- Adjustable body feed allows for customizable operation.  
- Wheeled tray for collection of spent cake after filtration.  
- Scavenger filter to maximize efficiency.  
- Suitable for use in many applications, specifically grape juice and wine.  
- Each unit can be configured specifically to meet your needs.  
- Pressure leaf filtration provides superior filtrate quality with minimal time and footprint.  
- Maximum pressure up to 6 Bar, extending the filtration cycle.
TMCI Padovan

TMCI Padovan Master Sheet Filter

The Padovan Master Sheet Filter is a steel and plated stainless steel sheet framework that holds steam-sterilizable and sanitary filters.

(Available in two sizes: Master Light for still products filtration and Master Inox for still and carbonated products.)

Standard Version

- Chassis is carbon steel-plated with stainless steel AISI 304, on wheels.
- Drip tray made in stainless steel AISI 304.
- NORYL plates with gaskets in food grade silicone rubber.
- Butterfly valves in stainless steel for inlet and outlet.
- Sampling and drain tap in stainless steel AISI 304.
- 2 pressure gauges.
- External manifolds connected to fixed plate.
- Standard manual hydraulic closure for Mod. 101/81 and Mod. 101/101.
- Stainless steel plates and crossover plates available for all systems on request.

TMCI Padovan Flottaflux Flotation System

The Padovan Flottaflux Flotation System is designed to reduce solids and provide clear juice or must, with minimal product loss, for all wineries regardless of size.

- Continuous separation of the solids from grape must and fruit juices.
- All contact parts in stainless steel.
- Automatic removal of solids by use of a rotating vacuum arm.
- Onboard dosing for gelatin, bentonite, and silica gel.
- Optional turbidity meter to monitor filtrate quality.
- Excellent juice yields with discharged solids greater than 30%.
- Filtrate clarity typically between 15 to 50 NTU.
**TMCI Padovan Kristalstop**

Padovan’s Kristalstop can cold stabilize in 90 minutes! This continuous tartaric stabilization system uses reusable tartrate crystals with flow-rates between 2,000 and 20,000 liters per hour.

**Standard Version**
- Recovery clip-on plate-heat exchanger with 2 flow meters and 1 flow regulation valve.
- Centrifugal feed pump, reactor and tank in stainless steel AISI 304.
- 3 recycling valves for not stabilized product.
- Remote multiple battery air-type condenser.
- Crystal separation and dosing device composed of tank, centrifugal multi-revolving pump, high-efficiency hydro-cyclones and crystal injection pump.
- Processing unit includes reactor with accessories, insulation in polyurethane foam and cladding in stainless steel.
- Electric switch-board with stainless steel box, complete of conductivity-meter and PLC discharge and washing.

**Advantages:**
- High coloring intensity, due to the optimal combination of the time, temperature, holding and leaching parameters.
- Color stability, guaranteed for a long time.

---

**TMCI Padovan Red Hunter Thermovinification Unit**

Continuous vinification line for the production of red, rosé and deep red wines with a superior alcohol content and a constant quality.

- Less than 30 seconds to reach process temperature, due to steam generated by the must. Immediate destruction of the oxidative enzymes (tyrosinases, oxidases, laccases).
- Physical extraction of all the coloring pigments (anthocyanes).
- No extraction of dangerous tannic components since the seed lipidic membrane is not denatured by fermentation and alcohol.
- Possibility to obtain natural juices that do not contain sulfur dioxide and that are suitable for exportation.
- Feed and discharge are continuous and flexible. This is due to the diffuser, which works as a buffer tank and allows any variation of the crushing output.
- Reduction of running costs and less room is needed.
Siprem

For over 45 years, Siprem International has developed unique, patented products with cutting-edge processes that enhance the quality of the must. ATPGroup is the exclusive representative for a number of their presses and crusher-destemmers in the US.

Siprem VS Vacuum Press

Siprem’s VS Vacuum Press, with its patented “vacuum system,” extracts must or wine of a much higher quality than is achievable using traditional systems. Models range from a tank size of 20 hectolitres to 505 hectolitres.

- Press construction is very similar to conventional pneumatic presses.
- Juice/wine is extracted by vacuum instead of pressure.
- Very gentle yet extremely efficient.
- Intelligent programming available.
- Enclosed system capable of pressing with inert gas.
- Programming and operation is identical to pneumatic presses.
- Units are self-contained requiring a very small amount of compressed air to operate valves.

Siprem PCM Continuous Membrane Press

The Siprem PCM Continuous Membrane Press provides unsurpassable performance made possible by a revolutionary system of continuous operation. Unbeatable productivity/quality yield ratio with models ranging from 10 tons per hour up to 45 tons per hour.

- Fractional must/wine separation.
- Gentle pressing process similar to conventional bladder presses.
- Complete automation of the various process operations.
- Innovative washing system controlled by PLC.
Siprem’s PA Pneumatic Presses provide reliability, versatile use and simple operation through all processing phases controlled by PLC. (Available with tank capabilities of 8 hectolitres up to 450 hectolitres.)

- Built-in compressor on smaller units.
- Automatic washing system with powered high-pressure hose cleaning behind drain channels.
- Intelligent programming available with optional sparkling wine program.
- Optional must pump for transfer from press to tank.
- Enclosed system capable of pressing with inert gas.
- Carbonic maceration capabilities.
- Storage of user-defined pressing programs.

Siprem International Crusher / Destemmer

The Siprem International Crusher/Destemmer is a versatile system that allows you to crush and destem, crush only or just destem only, without any significant equipment change. Models perform from 5 tons per hour up to 100 tons per hour.

- Variable speed drive controls cage rotational velocity.
- Optional draining hopper.
- Optional split cages available; variety of cage sizes available.
- Internal cage flushing system.
- All polished stainless steel.
- Easy access to cage and destemming shaft.
- Crusher rollers are adjusted externally.
- Inclined grape feed hopper with interchangeable destemming cages.
The GB BevTec Portable Flotation System is a patented system that streamlines juice and wine clarification and eliminates costly, time-consuming cold settling.

With the addition of an optional separator tank, the system can run continuously at 8,000 gallons per hour with no batch limitations.
C.E. Bartlett Wine Press Membranes

C.E. Bartlett wine press membranes are acknowledged as the best after-market press bladder membranes in the wine industry, bar none. In most cases, Bartlett replacement membranes will exceed the original manufacturers’ specifications. ATPGroup is the exclusive US distributor for Bartlett press membranes.

Bartlett Replacement Membranes

Bartlett’s 50 years of experience in fabric conversion, and using the most technically-accurate manufacturing methods, ensures that attention to known stress and wear areas is addressed without compromising the all-important flexibility of the membrane.

- Membranes are available for all makes and models of wine presses, American or European manufacturer.
- Comes with a unique 3-year warranty.
CDR

CDR designs and manufactures state-of-the-art technological systems which focus on microelectronics, first-rate mechanics and biochemical research. Their products are used at toll stations, in medical diagnostics systems and food by major food industries around the world.

CDR WineLab®

The CDR WineLab is a photometric, thermostated analyzer with solid-state emitters (LED). It is the ideal solution for fast and accurate lab analysis of wine and juice.

- Easy to use. No special training to operate is needed.
- It’s reliable, fast and extremely accurate.
- An economical way for wine and juice analysis.

Each WineLab analyzer comes with:
- One variable volume pipette from 0 to 25 microliters.
- One fixed volume 50 microliter pipette.
- Support for cuvettes.
- Spare printer paper roll, 100 pipette tips.
- USB cable and power cord.

Kits for CDR WineLab Analysis

These kits, developed by the research laboratories at CDR, are pre-calibrated and come ready-to-use. They are pre-vialed, disposable reagents with low toxicity.

Packaging: 10 single-use cuvettes per package.

Centrifuge

This is an ideal Centrifuge to clean small size samples. It’s portable and operates at 4000 rpm.

Application: To be used in preparation of samples that present a high-level of suspended solids.

Ultrasound Bath

This portable Ultrasound Bath is for removing CO₂ on small samples. It’s ideal where space is limited. Plus, it uses little electricity because of its low power usage.

Application: To be used to prepare for WineLab analysis. Use increases test accuracy during fermentation.
# List of pre-vialed analytical kits available from ATPGroup

<table>
<thead>
<tr>
<th></th>
<th>TEST PERFORMED</th>
<th>MEASURING RANGE</th>
<th>REPEATABILITY</th>
<th>RESOLUTION</th>
<th>TESTING TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUGARS</strong></td>
<td>Sugars in wine</td>
<td>0,10 – 18,00 g/L</td>
<td>0,2 g/L</td>
<td>0,01 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>Sugars in must sparkling wine</td>
<td>6,0 – 350,0 g/l</td>
<td>2 g/L</td>
<td>1 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>*Glucose and fructose in wine</td>
<td>0,05 – 18,00 g/L</td>
<td>0,2 g/L</td>
<td>0,1 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>*Glucose and fructose in must, sparkling wine</td>
<td>3,0 – 350 g/L</td>
<td>2 g/L</td>
<td>1 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td><strong>SO₂</strong></td>
<td>Free SO₂</td>
<td>1 – 60 mg/L</td>
<td>1,5 mg/L</td>
<td>1 mg/L</td>
<td>3 min</td>
</tr>
<tr>
<td></td>
<td>Total SO₂</td>
<td>15 – 250 mg/L</td>
<td>2,5 mg/L</td>
<td>1 mg/L</td>
<td>1 min</td>
</tr>
<tr>
<td><strong>MALOLACTIC</strong></td>
<td>L-Malic acid</td>
<td>0,05 – 5,00 g/L</td>
<td>0,05 g/L</td>
<td>0,01 g/L</td>
<td>4 min</td>
</tr>
<tr>
<td></td>
<td>L-Lactic acid</td>
<td>0,05 – 4,00 g/L</td>
<td>0,05 g/L</td>
<td>0,01 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>*Malolactic fermentation</td>
<td>0,05 – 5,00 g/L</td>
<td>0,05 g/L</td>
<td>0,01 g/L</td>
<td>10 min</td>
</tr>
<tr>
<td><strong>ACIDITY</strong></td>
<td>Acetic acid</td>
<td>0,05 – 1,20 g/L</td>
<td>0,02 g/L</td>
<td>0,01 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>Total acidity</td>
<td>1 – 10 g/L tartaric acid</td>
<td>0,13 g/L</td>
<td>0,1 g/L</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>pH</td>
<td>3,00 – 4,00</td>
<td>0,2</td>
<td>0,01</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>Alcohol by volume</td>
<td>0,1 – 17% vol.</td>
<td>0,2% vol.</td>
<td>0,1% vol.</td>
<td>5 min</td>
</tr>
<tr>
<td><strong>NITROGEN</strong></td>
<td>Organic nitrogen</td>
<td>30 – 300 mg/L</td>
<td>2 mg/L</td>
<td>1 mg/L</td>
<td>4 min</td>
</tr>
<tr>
<td></td>
<td>Inorganic nitrogen</td>
<td>30 – 300 mg/L</td>
<td>2 mg/L</td>
<td>1 mg/L</td>
<td>4 min</td>
</tr>
<tr>
<td></td>
<td>Acetaldehyde</td>
<td>18 – 300 mg/L</td>
<td>2 mg/L</td>
<td>1 mg/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>Gluconic acid</td>
<td>0,1 – 3 g/L</td>
<td>0,05 g/L</td>
<td>0,01 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>Glycerol</td>
<td>2 – 15 g/L</td>
<td>0,02 mg/L</td>
<td>0,1 g/L</td>
<td>6 min</td>
</tr>
<tr>
<td></td>
<td>Copper</td>
<td>0,05 – 1,00 mg/L</td>
<td>0,03 mg/L</td>
<td>0,1 mg/L</td>
<td>5 min</td>
</tr>
<tr>
<td><strong>POLYPHENOLS</strong></td>
<td>Antocyanes</td>
<td>10 – 1,000 mg/L cyanidin-3-o-glucoside</td>
<td>15 mg/L</td>
<td>1 mg/L</td>
<td>1 min + 60 min for extraction</td>
</tr>
<tr>
<td></td>
<td>Polyphenols FC</td>
<td>150 – 3300 mg/L gallic acid</td>
<td>10 mg/L</td>
<td>1 mg/L</td>
<td>5 min</td>
</tr>
<tr>
<td></td>
<td>*Catechins</td>
<td>1 – 40 mg/L</td>
<td>2 mg/L</td>
<td>1 mg/L</td>
<td>5 min</td>
</tr>
<tr>
<td></td>
<td>*Total polyphenol index</td>
<td>2 – 100 D.O. 280 nm</td>
<td>0,4 D.O. 280 nm</td>
<td>0,1 D.O. 280 nm</td>
<td>11 min</td>
</tr>
<tr>
<td><strong>COLOR</strong></td>
<td>*Intensity</td>
<td>1,0 – 40,0 D.O.</td>
<td>0,002 D.O.</td>
<td>0,001 D.O.</td>
<td>5 min</td>
</tr>
<tr>
<td></td>
<td>*Tonality</td>
<td>∞</td>
<td>0,002 D.O.</td>
<td>0,001 D.O.</td>
<td>5 min</td>
</tr>
</tbody>
</table>
The Parsec SAEn 5000 is the first fully-integrated, automated, cellar control system.

- Remote and wireless connectivity from anywhere
- Humidity and temperature control throughout the winery
- Complete control of the entire wine-making process
- Control over entire refrigeration system
- Reliability from the world leader in micro-oxygenation
- System control from a single source - Parsec SAEn 5000
- Complete system traceability at your fingertips
- Increased savings on power and energy usage
- System control from a single source - Parsec SAEn 5000
Parsec specializes in the design and manufacture of integrated control systems for the vinification and aging of wines. They’ve applied their technical savvy to not only improving the quality of wine, but the working environment of the wine cellar. Integration, precision, control, and reliability are the strengths of their systems, generating outstanding results via scalable and interactive automation.

**Parsec SAEn 5000**

Parsec is the world’s leading system for complete winery automation.
- Configured to fit winery requirements and to increase winery productivity.
- Independent supervision of features and equipment.
- **Quadr@** software: Windows environment, touch-screen interface, remote control, multi-support (all computers, tablets and smartphones).
- Thermo-regulation, selective extraction and fermentation kinetics control.
- Smart Sprinkler.
- Micro and Macro-Oxydation.
- Air-Mixing.

**Air Mixing M.I.**

This award-winning system is designed for the complete automation of red fermentation and is one of key expansions of the SAEn 5000.
- Water, power, labor and time saving.
- It’s programmable and extremely accurate.
- Personalized for each application based on the level of extraction required.

**Parsec EVO 1000**

The Parsec EVO 1000 provides automatic de-oxygenation and adjustment of dissolved CO₂ with complete automation of O₂ and CO₂ probes.
- One machine- several oenological applications.
- Works in line with the filler or filters.
- Effective deoxygenation (<0,15 ppm ideal for organic wines).
- Decarbonication of wine before bottling.
- Instant carbonication of wines (sparkling wine production).
Parsec

Parsec OxyLevel 2200

For measuring dissolved oxygen, the OxyLevel 2200 is the most advanced device of its kind. It allows precise measurements and strictly adheres to all food standards. Using inline measurement and an alarm, oxygen contamination can be detected anywhere in your production line.

- Measurements can be taken directly in the tanks by using stainless steel extension and inside closed bottles by means of clear glass and dot technology.
- Probe is extremely accurate, measuring anything from 4 to 24,000 ppb.
- Automatically compensates for temperature variations and is not sensitive to other dissolved gases.

Parsec SAEn 4000

The Parsec SAEn 4000 series micro-oxygenation system ranges from 3-5 outputs, with each output having its own microprocessor, allowing each tank to be controlled independently. It has automatic error detection with time-controlled dosing. It's fully digital, with an easy-to-use display. These are just a few of its features.

Parsec SAEn 4000 P1 and P2

Parsec’s SAEn 4000 P1 and P2 Portable Units are ideal for barrels and tanks. Both units have single and dual outputs, perfect for small or large volumes from 10 to 500 hectolitres and both feature Parsec’s fully digital, easy to use display.

Parsec OxyGenius Plus Portable

Parsec OxyGenius Plus Portable Unit is truly portable, easy to use and is also ideal for barrel or tanks with a volume range of 10 to 500 hectolitres. The OxyGenius Plus comes with a rechargeable battery.
All ATPGroup Parsec products are equipped with the same Parsec technology

```
<table>
<thead>
<tr>
<th></th>
<th>Portable</th>
<th>Compact</th>
<th>Modular</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit Name</strong></td>
<td>OxyGenius Plus D</td>
<td>SAE4000 P2</td>
<td>SAE4000</td>
</tr>
<tr>
<td><strong>Number of dosing points</strong></td>
<td>1</td>
<td>2</td>
<td>3 to 15</td>
</tr>
<tr>
<td><strong>Type of Dosage</strong></td>
<td>Standard</td>
<td>Standard</td>
<td>Personalized</td>
</tr>
<tr>
<td><strong>Volume range</strong></td>
<td>10 – 500 HI</td>
<td>10 – 500 HI</td>
<td>Personalized</td>
</tr>
<tr>
<td><strong>Compatible with trolley</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>External PC Connection</strong></td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Injection Modes</strong></td>
<td>3: Micron/ Macro/SI</td>
<td>3: Micron/ Macro/SI</td>
<td>3: Micron/ Macro/SI</td>
</tr>
<tr>
<td><strong>1 Dosing Chamber/Diffuser</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Fractioned Injection</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Monitoring (T, P, cP)</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Compensation of Variables</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Stainless Steel Case</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>IP 65</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Weight (kg)</strong></td>
<td>6</td>
<td>10</td>
<td>22/30</td>
</tr>
<tr>
<td><strong>Dimensions (mm)</strong></td>
<td>246x115x270</td>
<td>230x150x320</td>
<td>350x400x210</td>
</tr>
<tr>
<td><strong>Power Consumed</strong></td>
<td>.2/45</td>
<td>.2/45</td>
<td>.2/45</td>
</tr>
<tr>
<td></td>
<td>50 – 60 Hz</td>
<td>50 – 60 Hz</td>
<td>50 – 60 Hz</td>
</tr>
<tr>
<td></td>
<td>.3A</td>
<td>.3A</td>
<td>.3A</td>
</tr>
</tbody>
</table>
```

Definitions
* Type of dosage: It can be standard or high dosage.
** Volume range: Indicates the suggested size of the tank in which to use it.
ATPGroup Mobile Filtration Service will bring the entire filtration process direct to your winery, saving you both time and money. We have the best equipment in the industry. Just tell us what you need and when you need it and we’ll get your wine ready for bottling.

**Lees Filtration Service**
- ATPGroup Mobile Services can filter juice with or without bentonite lees or other forms of clarification at your location and can provide you with a lees recovery rate usually exceeding 50%.
- Our TMCI Padovan Roto-Vac Taylo 10 can process volumes up to 4,000 gallons of lees in 8–10 hours, with a suggested minimum volume of 500 gallons. (DE will be provided to you at your usual rate and we will collect the remainder for disposal.)
- The TMCI Padovan Dynamos 20 High Solids Cross-Flow can be run for up to 24 hours before needing to be cleaned and doesn’t require filter aids such as DE for lees filtration.

**Cross-Flow Filtration Service**
- Our Padovan Nitor SMART, 80sqm, Cross-Flow Filter is a gentle, low-operating-pressure membrane filtration that is highly-respectful of the characteristics of your wine. With no DE waste and minimal oxygen pick up, we can provide you with brilliant quality wines at flow-rates up to 1,200 gallons an hour.
  
  Have small lots? The Nitor SMART 80 can run a single membrane reducing your losses on those small, high-end wines.
- Our Cross-Flow Filters are fully automatic and can efficiently filter large or small volumes of wine with high NTU levels. Using the TMCI Padovan Nitor SMART, 80sqm, unit, we can reduce product loss to less than 1% with volumes as low as 500 gallons. The Nitor SMART 80 can filter sparkling wines too!
- Filterability can be ascertained using our mobile analysis, giving you a completely reliable Mobile Filtration Service that is designed to provide you with what you need to produce wines that achieve their full potential.
Our ATPGroup Applied Technologies Service and Maintenance Department technicians concentrate on providing a variety of maintenance and repair services to ensure reliability, functionality and the integrity of your equipment, whether your equipment was purchased from us or not.

Here are just some of the many services that our Service and Maintenance Department offers:

- We will ensure your facility’s equipment is operating or repaired to a level of maintenance and operation as to not disrupt your production process or overall operations.
- We can provide a range of ongoing services from predictive maintenance, preventative maintenance and corrective maintenance which we believe is crucial for keeping equipment running at peak performance.
- We can detect early signs of equipment fatigue that will save you on costly repairs and extend the life of one of your largest assets thereby helping you avoid expensive downtime.
- We can source replacement parts for just about any piece of winery equipment in North America.
- We offer 24/7 emergency repair service that will quickly repair damaged equipment and/or components to ensure reduced downtime.
- If we are unable to repair onsite, then we will remove the equipment to our fully equipped maintenance department. There, our professionally trained and qualified technicians will diagnose the problem, repair or replace parts and return your equipment fully functioning.
- We will provide a point-by-point “On Site Reliability Performance Inspection Report” every time your equipment is serviced.

With our wide range of industrial and commercial solutions coupled with day-to-day maintenance and 24/7 response to emergency calls, the ATPGroup’s Applied Technologies Service and Maintenance Department is your single service and solution provider.
Since 2010, ATPGroup has been the exclusive U.S. distributor of Stölzle Lausitz glassware to all wineries and tasting rooms across America.

Not familiar with Stölzle Lausitz glassware? Well, here’s what you need to know:

For over 125 years, Stölzle Lausitz has been recognized as Europe’s leading designer, manufacturer and marketer of high-quality, 100% lead-free, crystal glassware for tasting rooms, food services, hotels and retail markets.

Through innovative design, coupled with high-tech and environmentally-advanced manufacturing, Stölzle produces glassware that is higher in clarity, brilliance and resistance to breakage and scratches from dishwashing than most glassware found in the market today.

On top of that, all are at a fraction of the cost of other high-end glassware. With ATPGroup’s in-stock program, customers have the ability to receive their orders within days, not weeks.

Plus, we offer, through our partner decorators, a full-range of laser-etch and print artwork services allowing us to customize your glasses with your artwork or logo to any size and color desired. Turnaround times are fast, with most orders decorated in two weeks or less.
**Pinot Noir and Burgundy**

Burgundy glasses are designed to capture the aroma and delicacy of the Pinot Noir grape. The balloon design directs the floral, earthy and fruity aromas to the nose while playing down heavier shades of alcohol and wood that might drown out these subtle notes.

A wide rim directs the flow right over the front and center zones of the tongue, playing down the acidity and accentuating the rounder, mellower qualities of these wines.
Cabernet Sauvignon and Bordeaux

Our Bordeaux glasses are designed for Cabernet Sauvignon based wines, as well as big, tannic wines offering lots of spice and ripe fruit.

The large bowl allows the bouquet to develop layers of aroma. The narrow opening concentrates the aromas towards the nose. The thin rim directs the wine towards the front of the tongue. This allows the concentrated flavors to dominate before the tannins are directed towards the back of the tongue.
Syrah, Shiraz and Zinfandel

From the delicate raspberry flavors of a Shiraz to the jammy, dark fruit and spice of a Zinfandel, these red wines need to display their balance of tannin, fruit and aroma.

A large bowl and narrowed rim are necessary to aerate and concentrate aromas towards the nose while directing a balanced flow over the taste zones of the tongue. These glasses are also well-suited to a wide array of red wines as well as full-bodied white wines.

![Syrah, Shiraz and Zinfandel wine glasses](image-url)
These glasses are designed to deliver the finer qualities of classic White Burgundy and Chardonnay as well as a host of other white wines.

A tapered, gently curved bowl keeps temperatures low and aromas focused. The narrow rim directs the flow across the taste zones of the tongue with a balance of sweetness and acidity. The heightened aroma along with the simple shape matches a variety of white wines from dry and fresh to voluptuous and rich.
**Sauvignon Blanc**

Whether you’re tasting a crisp Sauvignon Blanc, a refreshing Chablis, an aromatic Riesling or a treasured and rich Montrachet, a white wine glass of the proper structure is essential. A gently curved narrow bowl keeps the temperature low and aromas focused. The tapered rim delivers the flow across the taste zones of the tongue with a balance of sweetness and acidity crucial to white wines.

These glasses are appropriate for light-bodied red wines as well as rosés.

![Sauvignon Blanc Glasses](image)

**Custom Decorated Glassware**

Custom decorated glassware is the perfect way to promote your brand and create customer loyalty. We offer, through ATPGroup, a full range of laser-etching and screen printing artwork services allowing us to customize your artwork or logo to any glass, any size, any color.
Champagne Flutes

The Champagne flute has a lot of work cut out for it when it comes to delivering what’s in the glass. A small surface area on the top is necessary to preserve the bubbles in a glass of sparkling wine, keeping the “mousse” intact.

A tapered, narrow rim sends effervescence and aroma to the nose while controlling the flow over the tongue, keeping a balance between cleansing acidity and savory depth.
Champagne Glasses

All the Champagne stems have a sparkling point in the base of the bowl. The carbon dioxide in the sparkling wine nucleates on this broken surface spot to create an ongoing stream of bubbles in the glass that continue long after that of glasses without this feature.
Sweetness has gotten a bad rap from a new generation of “drier is better” wine drinkers, but that all goes out the window when a glorious port or late-harvest Reisling is in the glass. A narrow bowl brings fruit and floral aromas typical of dessert wines straight to the nose. A wide rim controls the pour across the tongue. This allows the sweetness and/or acidity to play in perfect balance.

An after dinner drink is best enjoyed in a glass that maximizes its taste, smell, and appearance. A brandy snifter, for instance, should have a short stem and a wide bell-shaped bottom to allow a person’s hand to warm the glass while holding it. The glass then narrows at the rim, trapping the aroma.

Tulip shaped glasses are also very good for trapping aroma. The gentle slope upwards towards the nose provides maximum aroma, flavor and impact on the senses.
Decanters

Stölzle Wine Decanters are more than just a stylish vessel for wine. Perfect for wines with sediment, wine decanters allow for clarity in a pour, giving you a refined texture as well as flavor.

All of our wine decanters allow wines to breathe.
They can soften tannins and open up bouquets and aromas.
The GP-100 Polisher is:

1) EFFICIENT. Its polishing heads simultaneously polish glassware inside and out and are dried by the warm air of the blower.

2) GENTLE. Its soft microfiber twine material minimizes stress on glassware reducing potential for breakage.

3) SAVES TIME AND MONEY. It can polish up to 350 glasses per hour saving hundreds of dollars in labor and minimizing costly glass breakage.

4) SANITARY. Your customers enjoy crystal clear glassware with minimal handling by staff.

5) PORTABLE. A small footprint and lightweight with built-in handles for portability.

Specs:
110v – 1350 watts; Weight – 38 lbs; Measurements – 20"H x 13"L x 11.5"W.
(A set of 5 polishing heads are included with the GP-100 Polisher. The heads are easily cleaned by hand or machine washable.)

Available accessories:
- Glass Polisher Replacement Head Set of 5 – Item no. PH-5S
- Champagne Flute Polishing Head/Individual – Item no. GP-554.
Tossware® Drink. Toss. Recycle.

Hit it. Squeeze it. Drop it. Step on it. Tossware won’t shatter!

Tossware is made from BPA-free, recycled PET Polymer which makes its glasses impossible to break. Its engineered, shatter-proof design keeps you worry-free of accidents that can happen with regular glass receptacles. You don’t ever have to pause servicing your customers or move them around to clean up shards of glass.

Then there’s Tossware’s clarity: Tossware looks like actual glass, with true crystal clarity; your wine looks like it should look.

Also, Tossware is 100% recyclable. Once they’re used, toss ‘em.

Plus, Tossware’s patented stacking feature lets you save space, making it easier for you to display more at one time anywhere you want them in the winery. (All drinking glasses and flutes are conveniently packaged in recyclable, grab and go sleeves.)

On top of that, Tossware can be decorated! That’s right. Print your logo, your name, a saying... anything can be printed on them. (Minimum purchase required.) You can even offer the printed tumblers for resale to your customers. Just check with us here at ATPGroup and we’ll tell you what you can and can’t do.
Hit it, squeeze it, drop it, step on it. Tossware won’t shatter.

Your choice of removable stems: Black, clear or white.

NEW 6 OUNCE FLUTE JR. WITH REMOVABLE STEMS (BLACK, CLEAR OR WHITE)

New 14 ounce vino w/removable stem (black, clear or white)

True crystal clarity and it’s not glass.

FJ0102028
6 OUNCE FLUTE JR.

F0102004
NEW 9 OUNCE FLUTE

NEW 14 OUNCE VINO W/REMOVABLE STEM (BLACK, CLEAR OR WHITE)

NEW 14 OUNCE VINO W/REMOVABLE STEM (BLACK, CLEAR OR WHITE)

V0102015
14 OUNCE TUMBLER

TJ0102020
12 OUNCE TUMBLER

T0102002
18 OUNCE TUMBLER

NEW 28 OZ DECANTER W/BUILT IN AERATOR
Coravin™ allows you to pour a glass of wine without pulling the cork. With no oxidation, the remaining wine in the bottle will be preserved for weeks, months or even years.

**Coravin™ Model Two Wine System**
Item No: 100010
Pack includes:
Model 2 System
2 Argon Capsules
Coravin™ Wine Bottle Sleeve
Standard Needle
Needle Clearing Tool

**Coravin™ Model Two Plus Pack**
Item No: 100009
Pack includes:
Model 2 System
2 Argon Capsules
Carry Case
Coravin™ Wine Bottle Sleeve
3 Needle Kit
Needle Clearing Tool

**Coravin™ Model One Wine System**
Item No: 100015
Pack includes:
Model 1 System
2 Argon Capsules
Standard Needle
Needle Clearing Tool

**Coravin™ New Standard Needle**
Item No: 801059
Standard Needle
16.5 gauge
Teflon® coated stainless steel
Ideal for most bottles
Pour speed = 25 – 29 sec.

**Coravin™ New Faster Pour Needle**
Item No: 801060
Faster Pour Needle
15.5 gauge
Teflon® coated stainless steel
Faster pour
Pour Speed = 19 – 25 sec.

**Coravin™ Three Needle Kit**
Item No: 801056
Kit includes:
1 Faster Pour Needle
1 Standard Replacement Needle
1 Vintage Cork Needle

**Argon Gas Capsule**
Item No: 410028
Individual Capsules
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