Infinity technology sets new standards in winemaking

infinity
Technology

With the innovative **Infinity technology**, wines and sparkling wines can be produced without oxygen exposure and without additives. The patented system saves winemakers a great deal of effort, time, and money. The Moldovan winemaker **Vitalie Popa** and German-Croatian barrel manufacturer **Bruno Alexander Gantenbrink** (the owner of **auric barrels** *d.o.o.*, www.auric-barrels.com) have developed a new method for winemaking: the **Infinity technology**.

The innovative technology includes **three revolutionary products** for fermentation, maturation, and bottling of still and sparkling wines:

- **Infinity Barrel**
  – a custom-made wooden pressure fermenter for white and red still wines (225 liters)

- **Infinity HYBRID**
  – a custom-made wooden pressure fermenter with a stainless steel pressure tank for white and red still and sparkling wines (combined 1,000 liters)

- **ABC Anaerobic Bottling Closure**
  – an anaerobic bottling closure for white and red still and sparkling wines

The **Infinity technology** enables still and sparkling wine production using only grapes (juice and/or berries), yeast, and bacteria—with no additives or preservatives. The anaerobic system prevents oxidation, contamination, and evaporation. It allows high-quality wine to be produced with fewer technological steps. The technology significantly reduces the workload for cellar masters and even allows small-scale and hobby winemakers to produce wine without any cellar equipment.

The technology is patented, and its effectiveness has been confirmed by Geisenheim University in 2021 and 2022. At Vinitech Sifel 2022 in Bordeaux, the **Infinity technology** won the Innovation Award. In June 2025, the inventors successfully presented their technology at the 46th World Congress of the International Organisation of Vine and Wine (OIV) in Chișinău.

Infinity Barrel

The **Infinity Barrel** is a custom-made wooden barrel. It is gas-tight and pressure-resistant, preventing unwanted oxygen intrusion. A novel stainless-steel bung called the **V-Bung** ensures a perfect seal, eliminating the need for wine sulphuring.

Traditional wooden barrels are usually sealed with silicone bungs, which are not properly sealing the barrels and what need to be removed to take samples, for tastings, or topping up or SO2 correction—this is letting oxygen in. Additionally, oxygen can enter through the gaps between staves or due to fluctuating air pressure in the cellar. This is usually countered by adding sulphur dioxide.

The **Infinity Barrel** is reinforced with food-grade silicone rods between the staves. Instead of the conventional six riveted hoops, it uses eight adjustable hoops with bolts that exert equal pressure regardless of position. The Infinity Barrel features the V-Bung—a stainless steel bung with a clamp, overpressure valve, gas inlets, pressure gauge, height-adjustable spear, and a cooling/heating coil. The built-in spear allows to take samples by applying pressure, without removing the bung or exposing the liquid to oxygen.

The cooling coil controls temperature throughout vinification. Cold stabilization can be made as well. Excess pressure escapes through the valve in the V-Bung. In a filled Infinity Barrel, pressure remains constant, enabling maceration, fermentation, malolactic fermentation, and aging under consistent pressure.

Due to the extremely low oxygen exposure during production and storage, the resulting wines are longer-lasting and immediately ready to drink. This allows winemakers to focus on grape quality—the more naturally the grapes are grown, the better the technology's advantages can be utilized.

Infinity HYBRID

The **Infinity HYBRID** fermenter combines the Infinity Barrel with a custom-made stainless steel pressure tank and a perforated filter.

Mounted above and connected to the barrel, the steel tank supports fermentation using only yeast and bacteria, accelerates fermentation and aging, and excludes any additives or preservatives.

The system provides full control over oxidation, contamination, and evaporation. Its integrated perforated cylindrical filter enables fermentation of both liquid and solid components.

The **Infinity HYBRID** fermenter can be operated aerobically or anaerobically, with or without pressure. Adjustable temperature and pressure settings allow both pressure vessels to function independently or in tandem. Thus, fermentation can occur simultaneously in the wooden barrel and stainless steel tank and be combined at any stage by opening two valves.

Multiple HYBRID systems can be linked in series to enable continuous fermentation, even allowing barrel switching during operation. Still and sparkling wines can be produced.

ABC – Anaerobic Bottling Closure

The **ABC** is the first reusable bottling closure designed for anaerobic bottling. The closure is applied before the bottling process. The wine is filled through the closure itself. It features a housing, stainless steel spring, as well as inlet/outlet ports for gas and liquid.

By using inert gases such as argon, nitrogen, or carbon dioxide, it ensures a stable anaerobic environment. The filling head can also serve as a dispenser, allowing sample extraction without removing the closure. Its reusable design is sustainable and cost-effective, eliminating the need for disposable closures.

Advantages of the Infinity technology

Compared to conventional winemaking systems, the **Infinity barrel**, **Infinity HYBRID**, and **ABC** offer numerous advantages:

- ✓ Applicable to various winemaking styles and multiple fermentation processes for still and sparkling wines
- ✓ Completely free of additives and preservatives like sulphur dioxide
- ✓ Enable temperature-controlled fermentation
- ✓ Allow full control of oxidation, contamination, and evaporation during vinification
- ✓ Eliminate the need for topping and racking barrels
- ✓ Accelerate anaerobic aging under pressure
- ✓ Can be filled directly in the vineyard—the wine "makes itself" as the grapes already contain everything needed
- ✓ The wine remains stable in sealed barrels; full barrels can be transported without issue.
- ✓ Empty barrels are cleaned with 85°C hot water and 100 bar pressure in an orbital washer, then filled with inert gases like nitrogen, carbon dioxide, or argon.
- ✓ No need for additive declarations on the label or via QR code; the wine truly contains only one ingredient: grapes.

Thus, the **Infinity technology** offers greater flexibility, higher efficiency, improved safety, and enhanced wine quality—with significantly less effort, time, and cost.

By the beginning of 2026, the **Infinity Pro** (30 to 50 liters) will be released to the market. This enables winemakers, research centers, and universities to perform advanced trials on smaller volumes.

Further information can be found on

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www.auric-infinity.com

Also take a look at the three videos!