

Wine Filtration Elements

Sanitary Pressure RO Spiral Wound Elements



Filtration has long been an important step in the winemaking process for wineries of all sizes around the globe. This process helps achieve the best possible texture, taste, consistency and stability of wines before they are bottled for distribution and sale to consumers.

Filtration plays a vital role in ensuring the quality and stability of wine. It helps to remove impurities and unwanted particles that can affect the taste, appearance, and shelf life of the wine. The filter core, or filter cartridge, is a key component in this process, as it efficiently captures and removes these particles.

Membrane Filtration in Winemaking

Membrane filtration has been applied to wine for a long time. It plays a crucial role in the field of separation, purification, clarification, stabilization, concentration, and dealcoholization of wine products, becoming an indispensable part of the winemaking process.

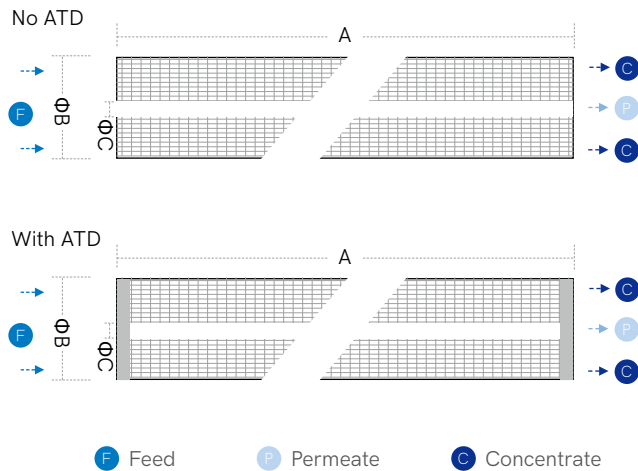
During the winemaking process, diverse contaminants like plant colloids, pulp residues, starch fibers, bacteria and yeast have the potential to exert a substantial impact on wine quality. By controlling the filtration accuracy through membrane, we can obtain good sensory quality, and effectively remove microorganisms to achieve aseptic filling.



Why Choose UNISOL

UNISOL sanitary reverse osmosis products are with high-rejection membrane that has used to process a wide range of food, beverage, and dairy streams. These elements are especially effective in dewatering and product concentration.

This series is designed with pressure resistance up to 80bar.



Operating Reference

Membrane Type	Polyamide
Max. Operating Temperature	50 °C (122 °F)
Max. Cleaning Temperature	55 °C (131°F)
Max. Operating Pressure	80 bar (1160psi)
Max. Pressure Drop	1 bar (14.5 psi) for individual element
Operating pH Range	2-10
Cleaning pH Range	1.8-11
Stabilized Salt Rejection	99%
Free Chlorine Tolerance	<0.1 ppm



The filtration process is usually involved in several steps of product elaboration during winemaking. Filtration in winemaking is used to accomplish clarification and microbial stabilization.

In clarification, large particles that affect the visual appearance of wine are removed. And bacteria or yeasts are removed in microbial stabilization with the aim of reducing the probability of re-fermentation or spoilage.

Advantages

- It can effectively remove various microorganisms, yeast, pectin, suspended particles, and other microorganisms that affect the quality of wine from the original solution.
- Physical filtration without any chemical additives, the substances in the original solution will not be damaged, obtain wine products with bright color, long shelf life and high quality.
- Forced concentration to adjust the sugar content, alcohols or other compounds and the color in wines.
- Offering a wide range of sanitary RO, NF, UF & MF membrane elements designed for dairy and food applications.
- Capable to build custom elements in the size and configurations to meet your specific requirements.

Applications

- Alcoholic beverages
- Soft drinks
- Fruit drinks
- Brewery industry
- Soybean processing
- Dairy industry
- Polysaccharide & edible gum processing
- Food refining



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