

## Oenoflow™ XL-E Crossflow Microfiltration System The Easy Choice for Winemakers

### Description

The Oenoflow XL-E systems are specifically designed to meet the needs and requirements of small and mid size wineries. The fully automated system enables post fermentation clarification of wine in a reliable, economical and single process step. Clarification is achieved without the need for filter aids, centrifugation or significant impact on the organoleptic characteristics of the wine.

The system utilizes Pall's proven high area, hollow fiber membranes with unique mechanical strength and excellent chemical resistance which allow high productivity and repeated exposure to aggressive cleaning regimes. When coupled with the user friendly software with cycle programming and a compact footprint, the XL-E series is the easy solution for wine clarification.

### Cost Saving Benefits

With Pall's extensive experience in crossflow filtration of wine and dedication to simplified process design and control logic, the XL-E system incorporates unique features which enable wineries to perform clarification at low operating costs while maintaining wine quality. These include:

- PVDF membranes with high mechanical strength for longer service life
- High area, high flow modules for more compact and more economical systems
- Back pulse capability for increased system productivity
- Fully automated production and cleaning cycles for unattended operation and reduced labor and downtime
- Transparent module housing to confirm filtrate quality and enhance troubleshooting capabilities
- On board concentration tank for reduced wine movements (no racking required)
- Flexibility to operate with optional external bleed
- Automatic flow control for gentle operation

### Oenoflow XL-E Membranes

The Oenoflow XL-E modules incorporate Pall's proven symmetric hollow fiber membranes. The large diameter, high flow modules with 21.5 square meters of filter area, have at least twice the filter area of typical competitive hollow fiber modules. The module components include:

Membrane:	PVDF
Potting:	Epoxy resin
Sleeve:	Polypropylene
Housing:	transparent polysulphone
Seals:	Ethylene Propylene copolymer



### Oenoflow XL-E System Components

The Oenoflow XL-E systems are fully automated, modular systems available with two or three crossflow filtration modules. The 304 stainless steel piping manifolds, membranes, pumps and instruments are mounted on a mobile frame which includes the following:

- Stainless steel pre-filter screen for large particles
- On board concentration/cleaning tank
- Feed pump
- Circulation pump
- Filtrate reservoir
- Filtrate/back flush pump
- Magnetic flow meter with batch control
- 1 micron water filter with temperature control
- Automatic chemical dosing
- Touch screen PLC
- Pressure, temperature and dry run protection

### Oenoflow XL-E Equipment Options

The following options are available for additional supply:

- External transfer pump
- Nitrogen purge and blanketing

## Compliance

The Oenoflow XL-E systems are manufactured in accordance with European Pressure Directives and each system is supplied with a CE mark.

Various Oenoflow modules have been qualified for compliance to specific regulatory standards for products coming into contact with foodstuffs. Please contact Pall for details.

## Oenoflow XL-E HP Systems

Oenoflow XL-E HP systems are designed for the preparation of sparkling wines under isobaric conditions. This allows the use of one system for all the necessary treatments in the

production of sparkling wines. For isobaric operation, re-circulation is back to the customer's external tank. If the system is used for preparation of the base wine before re-fermentation, the system functions like the standard Oenoflow XL-E systems.

## Operating Conditions

Wine Filtration

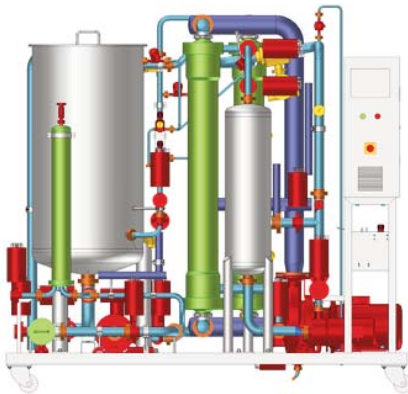
Still wine inlet pressure: 0.5 to 3.5 bar (7 to 50 psi)

Sparkling wine inlet pressure (isobaric conditions): 4 to 6 bar (60 to 90 psi)

Temperature: 0°C to 25°C (32°F to 77°F)

Maximum temperature for cleaning: 65°C (150°F)

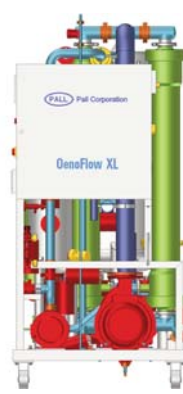
Front view



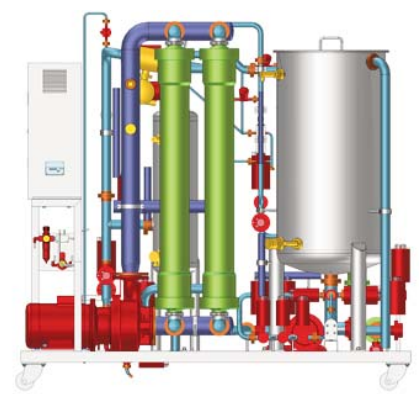
Left side view



Right side view



Rear view



## Standard Filtration Skid Specifications

Model	No. of modules	Average flow rate	Length	Width	Height	Weight (empty)
Oenoflow XL-2E	2	20 - 30 hl/h (530 - 800 gal/h)	2.20m (7.22 ft)	1.00 m (3.28 ft)	2.10 m (6.89 ft)	670 kg (1477 lbs)
Oenoflow XL-2E HP	2	20 - 30 hl/h (530 - 800 gal/h)	2.30 m (7.55 ft)	1.00 m (3.28 ft)	2.38 m (7.81 ft)	750 kg (1653 lbs)
Oenoflow XL-3E	3	30 - 45 hl/h (800 - 1130 gal/h)	2.30 m (7.55 ft)	1.00 m (3.28 ft)	2.10 m (6.89 ft)	720 kg (1587 lbs)
Oenoflow XL-3E HP	3	30 - 45 hl/h (800 - 1130 gal/h)	2.30 m (7.55 ft)	1.00 m (3.28 ft)	2.38 m (7.81 ft)	800 kg (1764 lbs)



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