

# FPA10 & FPS10 MEMBRANES TECHNICAL DATA



## FPA10 & FPS10 Membranes

Polymer	PVDF COPOLYMER
pH Range	1.5 to 10.5
Maximum Pressure	7.0 BAR
Maximum Temperature	60°C
Feed Flow Rate	up to 30 l/min per single tube
Clean Water Flux (Typical)	400-600 l/m <sup>2</sup> /hr at 15°C and 0.5 bar
Molecular Weight Cut Off	100,000 Da (NOMINAL)

### CIP Solution

**Step 1** Sodium hydroxide to pH 10.5 max. at 50-55°C. recirculated for 20 minutes.

**Step 2** Sodium hydroxide to pH 10.5 max. plus sufficient sodium hypochlorite to give 200 ppm free chlorine (based on plant total volume), maximum 250 ppm at 50-55°C, recirculated for 30 minutes during

which further sodium hypochlorite may be added to maintain the level of free chlorine.

It is essential that the pH of 10.5 is achieved before addition of sodium hypochlorite in order to prevent attack of the membrane by the hypochlorite.

**PCI Membranes (a Filtration Group brand)** have proven experience in membrane technology, and its application in many industries, demonstrated over more than 45 years.

PCI products are used around the world to improve quality, efficiency and profitability, and to reduce waste.

The FPA10 & FPS10 Membranes have applications in many processes, in the food and beverage, chemical, pharmaceutical and wastewater treatment industries:

### Apple Fruit Juice Clarification

Ultrafiltration using open channel (tubular) membranes overcomes many of fruit juice clarification problems, and produces a high quality clear juice at low cost and with a significant reduction in the use of consumables. Furthermore, UF allows a much higher juice recovery to be realized in a single operation. To date the FPA10 & FPS10 Membranes have been successfully used to clarify apple and pear juice.

### Wine Clarification

Wine can be clarified using a variety of techniques. Bag filtration, decanting and rotary vacuum filtration are all used to produce clear, visually acceptable wine. Ultrafiltration using membranes with a separation point produces crystal clear wine which is also cold-sterilised by the membrane process.

### Biomass Separation

The FPA10 & FPS10 Membranes have been successfully used to separate active sludge into a liquid suitable for further processing, and biomass which is returned to the biology reactor. The FPA10 & FPS10 Membranes replace filters and settlement tanks found in traditional treatment processes. Higher biomass recovery rates and easier process control.

### PCI Membranes Guarantee of Quality encompasses:

- Highly-qualified technical support in product and process design and selection.
- Turnkey systems design, engineering and construction.
- Reliable, fast-response service network.
- Custom tailored membranes to optimize process performance.