



I Application

HydroBrane is an inline system for accurately managing dissolved gas concentrations in liquid products. The following applications are possible: de-aeration, de-oxygenation, carbonation, de-carbonation and nitrogenation. Concentrations increase and/or decrease and can be simultaneous. The main applications include beverage production and brewing in particular.

I Operating principle

The gas adjustment chamber consists of tubular membranes with vacuum or sweep gas inside. The product flows around the membrane. The membrane provides a hydrophobic barrier which allows the gas to either diffuse into or out of the liquid. The concentration of more than one gas can be adjusted simultaneously. The operating principle is based on Dalton's Law of Partial Pressures and Henry's Law which refers to the gas concentrations depending on the partial pressure.

I Design and features

- Modular design
- Inline installation
- Gas efficient
- CIP cleanable
- Product is unaffected by the membrane
- Various membrane sizes: 2,5", 4" & 10"
- Scaleable system from 500 l/h to 80000 l/h.



I Materials

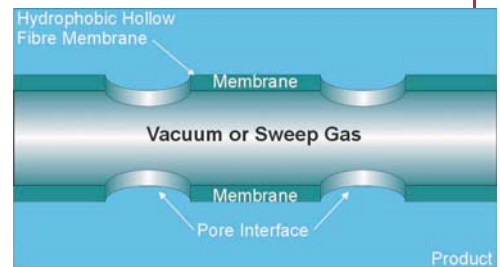
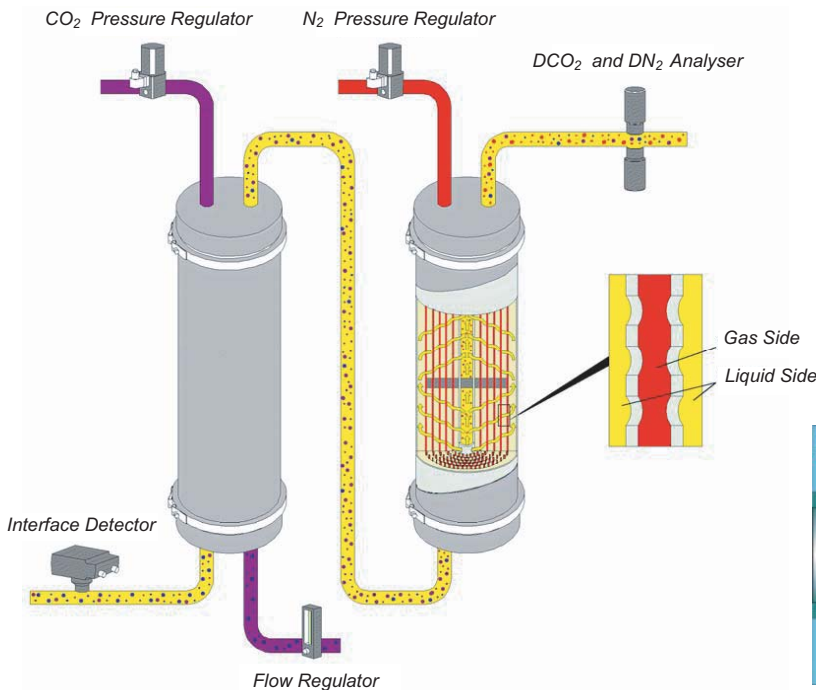
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|---------------------------------------|----------------------|
| Metal parts in contact with the media | AISI-316 |
| Membranes | hydrophobic material |
| Gaskets | EPDM |

I Options

- System can be run manually or with various levels of automation.
- Unit can be supplied with discrete CIP unit

I Benefits/Advantages

- Modular design allows for easy future upgrades
- Flexibility - Same unit can perform various applications.
- Simultaneous adjustment of more than one dissolved gas can be achieved
- Can run online
- Low Running costs - Efficient use of gas and low power consumption.
- System is diffusive not dispersive, therefore no bubbles are formed providing a better quality end product.
- Excellent for difficult applications such as nitrogenation and controlled decarbonation
- Accurate method of inline adjustment.



I Selection

If you would like us to size a system for a specific application, please fill in the questionnaire.

Product			
Flowrate			
Temperature			
Pressure Head at outlet			
Gas(es) to be controlled			
Inlet Concentration			
Outlet Concentration			
Gas Analyser Required Yes/no			
Manual or Automatic Operation			

