Produkt Aus

Strip Gas

Vacuum/ Strip Gas

Produkt Ein

TLS lobe rotor pump

Anton Paar CO2 sensor

I Application

The WineBrane is an inline management system, designed by INOXPA, for accurately measuring dissolved gas concentrations and alcohol removal or adjustment in wine. The gas management system includes the whole spectrum of removal and addition of gas. This includes O_2 and CO_2 removal in young red wines, the deoxygenation just before bottling or stocking for vinification, refreshing of white and rosé wines with CO_2 during bottling or the production of perlé wines. This system can either be installed before a bottling line to adjust gas concentrations of finished wine or between tanks for the transfer to storage tanks. Alcohol adjustment is made by recirculation in a tank with counter flow of water on the other side of the membrane. It is possible to install the WineBrane unit, for an independent and safe operation, before a pressurised tank that feeds an isobaric bottling machine.

I Principle of operation

The main component of this skid is a hydrophobic membrane which contains small pores that allow gaseous molecules to pass. Only gases with low molecular weight can pass through the barrier thus the structural properties of the wine remain unchanged avoiding the loss of aromatic components. The wine flows in the outer shell side of hollow fiber membranes where as in the lumen side, a vacuum or CO_2 as a sweep gas, is applied for removal of O_2. To directly dissolve gas into the wine CO_2 flows with an overpressure of 0.2 – 0.5 bar and if desired can be added up to the limit of solubility.

I Design and features

The design and construction of the units is performed in compliance with the requirements of the food-processing industry:
- Parts in contact with the product: St.St. AISI 316.
- Frame: St.St. AISI 304.
- Pumps: rotary kobe pump for wine, vacuum pump for gases.
- Seat valves and butterfly valves.
- FDA certified hydrophobic polypropylene membrane.
- Membrane protection: separating membrane pressure gauge.
- Control panel: St.St. AISI 304. Totally automated. Touch screen control.
- Remote maintenance via Ethernet or GSM.
- Instrumentation: temperature probes and pressure gauges with clamp.
- Optical oxygen sensor (Hamilton). CO_2 analyzer (Anton Paar).
- Pressure transducers and temperature probes.
- Frequency converters for motor control.
The design is CIP cleanable (alkaline solution and disinfectants), units can also be sanitised with hot water.

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I Options

All the WineBrane models are automated and provided with a built-in CIP system.

Standard models for gas adjustment: 5000 l/h, 10000 l/h and 20000 l/h.

To install the WineBrane to an existing production line, other options are avaialble upon request.

I Technical specifications

Max. wine flow gas management	20 m³/h	88 US GPM
Max. operation pressure	5 bar	72 PSI
Operating temperature	1 ºC to 40 ºC	34 ºF to 105 ºF
Max. caustic soda sanitation temperature	85 ºC	185 ºF

Model	Flow* [l/h]	Power [kW]	
		Rotary lobe pump	Vacuum pump
WB-5000 AUT GAS	5000	2,2	1,2
WB-10000 AUT GAS	10000	4	1,2
WB-20000 AUT GAS	20000	5,5	2,4

*Nominal flow in gas adjustment mode.

I General dimensions
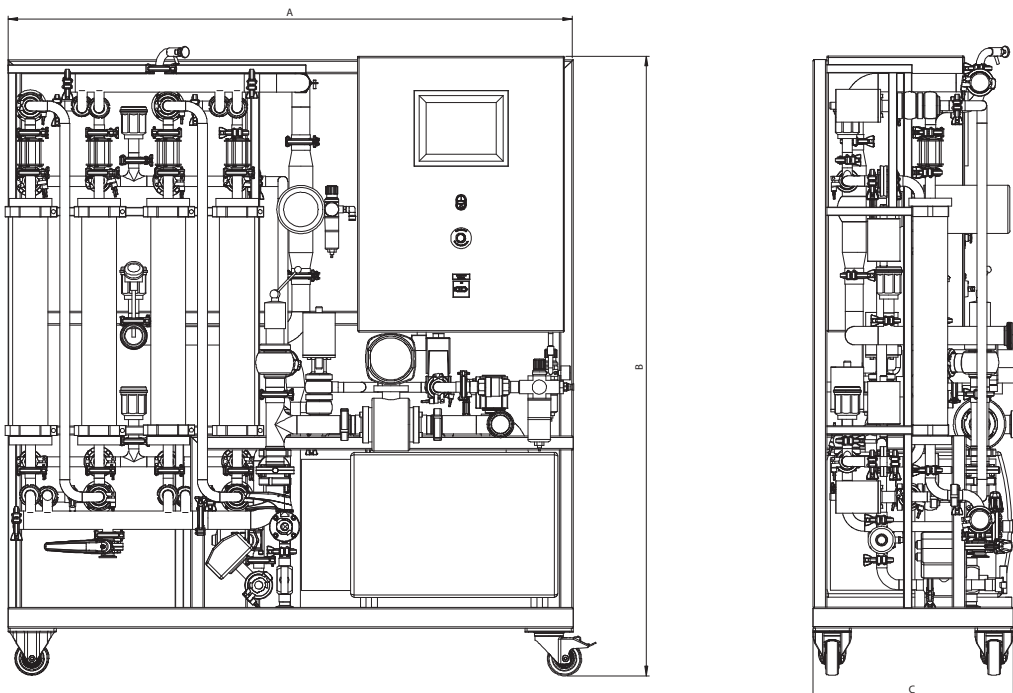
Model	DN	Dimensions* [mm]			Weight [kg]	Code
		A	B	C		
WB-5000 AUT GAS	40	1650	1800	720	185	EW013-5000AUT
WB-10000 AUT GAS	40	1650	1800	720	220	EW013-10000AUT
WB-20000 AUT GAS	50	2000	1900	800	310	EW013-20000AUT

*Approximate dimensions.

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ISO 9001
BUREAU VERITAS
Certification

CE