SEPAREL®

Hollow Fiber Membrane Module

Doc. TI1601-M001-E

Without N2 Sweep Gas, SEPAREL[®] Provides Very High O2 Removal Performance

In the membrane degassing process, N2 combo mode is commonly used to achieve high O2 removal performance to a ppb level.

However, because a N2 supply is needed in N2 Combo mode, running costs increase significantly and immense space is needed for a N2 supply device.

To resolve this issue, SEPAREL[®] delivers exceptionally high O2 removal performance with only vacuuming. Consequently, initial and running costs are reduced. Additionally, SEPAREL delivers a variety of benefits, such as space and weight reduction.



Conditions for Simulation		Vacuum Mode	N2 Combo 50Torr	N2 Combo 25Torr
	Water Temperature °C	25	25	25
	Water Flow Rate m3/h	1325	1325	1325
	DO IN μg/L	8110	8110	8110
	Degassing Rate %	99.3	99.3	99.3
	DO OUT μg/L	60.0	60.0	60.0

Simulation Results

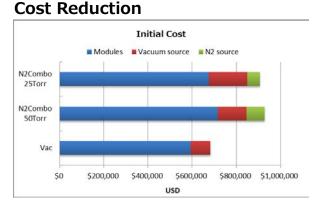
		Vacuum Mode	N2 Combo 50Torr	N2 Combo 25Torr
Degassing Module	Product	EF-120	EF-120	EF-120
	Number of Unit	58	70	66
	Series	2	2	2
	Parallel	29	35	33
N2 Sweep Gas [≭]	N2 Purity [%]	-	99.9	99.9
	Total N2 Flow [Nm3/h]	-	56.3	31.8
Vacuum	Vacuum Pressure [Torr]	25	50	25
	Pumping Speed [m3/min]	15	23	33

X Simulation assumes that N2 Supply Device is PSA N2 generator.

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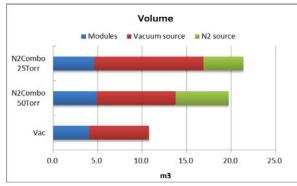
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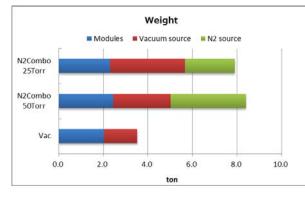
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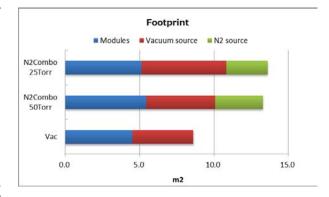




Space and Weight Reduction







Compared to N2 combo mode, SEPAREL's vacuum mode delivers:

- Reduced initial running costs
- Reduced running costs
- Smaller total unit volume
- Smaller footprint
- Lighter weight
- Items mentioned in this information are for customers' reference and limited to certain examples although they are based on the most reliable data obtained by our company. It is hoped that customers make the best use of these products after careful examination.
- We are not responsible for any usage, installation, or any other handling done by the customer. The module must be used, installed, and handled responsibly by the customer.

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