

# defender™ SWB

Membrane Air & Gas Dryer



## Quick Study

The Defender™ Membrane Gas Dryers utilize non porous, hollow fiber membrane tubes made of Flemion™ to continuously remove water vapor from compressed air or sample gas, significantly lowering the water dew point and reducing the potential for moisture damage to analyzers and instrumentation. The drying process is accomplished by flowing wet air or gas through the inside of the hollow fiber membrane tubes where water vapor molecules will permeate through the wall of the membrane. The permeated water vapor molecules evaporate and are then swept away by purge gas flowing countercurrent over the outside of the membrane tubes. These dryers have the capability to lower the dew point of the supply gas. The effectiveness of the dryer will be directly related to the supply gas pressure and its dew point temperature, as well as the operating temperature of the dryer. There are three series of Defender™ Membrane Dryers: SWB™ Series, SWC™ Series, and SWG™ Series.

### Applications

- › Drying non corrosive gases
- › Drying sample or carrier gas
- › Drying compressed air

### Benefits

- › Achieves low dew points
- › Can accommodate high flow rates
- › High water vapor selectivity
- › No desiccant or refrigerants required
- › No electricity or drain required
- › Maintenance free operation
- › Mounting flexibility

### Features

- › Non porous, chemically resistant hollow fiber membrane
- › No moving parts
- › Shell and tube design
- › Bidirectional flow pattern

**The SWB™ Series** are shell and tube dryers primarily used in sample gas applications. They can also be used for compressed air applications where the SWB™ conforms to the dimensional requirements or the required flow rate is higher than what the SWC™ Series can accommodate. There are four models in the SWB™ Series, and they can accommodate flow rates up to 600 L/min. The flow pattern through the dryer is bidirectional, allowing for mounting flexibility as the inlet port can be at either end. This series of dryers does not have a built in purge so either an external purge gas source or rerouting dried gas from the outlet for use as purge gas is required. In order to protect the membrane dryer from solid and liquid contaminants, a prefilter (also available from A+ Corporation) should be installed on the inlet side of the dryer.

## Technical Specifications

<b>Operating pressure range</b>	Supply gas	0 - 120 PSIG
	Purge Gas	0 - 7 PSIG
<b>Operating temperature range</b>	Maximum temperature	131°F (55 °C)
	Minimum temperature	-4°F (-20 °C)
<b>Supply gas flow rate*</b>	D42-SWB-01-100:	150L/min
	D42-SWB-01-200:	100 L/min
	D68-SWB-02-100:	300 L/min
	*Maximum flow results in approximately 5 psi membrane differential pressure.	
<b>Purge gas flow rate</b>	The typical purge gas flow ratio is 20% of the supply gas flow rate.	

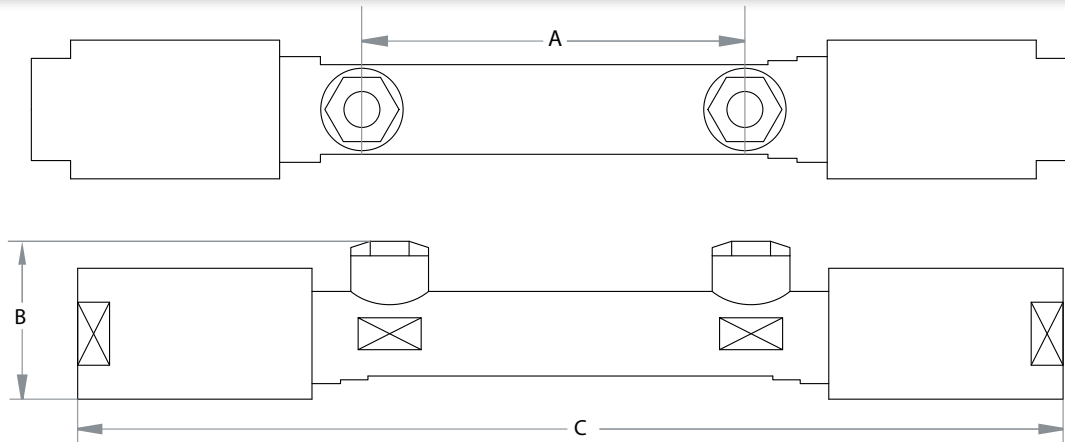


# Model Numbering & Additional Part Numbers

Your model number is determined by your specific needs. Choose options below.

Model Number	Connection size		Flow Rate (L/min)	Material of construction
	Supply NPT	Purging NPT		
D42-SWB-01-100	1/4"	1/8"	~150	cap: aluminum casing: polycarbon  *add P for polypropylene caps
D42-SWB-01-200	1/4"	1/8"	~100	
D68-SWB-02-100	3/8"	1/2"	~300	
D68-SWB-05-100	3/8"	1/2"	~600	

## Dimensions



Model Number	A (inches)	B (inches)	C (inches)
D42-SWB-01-100	3.9	1.9	9.4
D42-SWB-01-200	7.9	1.9	13.4
D68-SWB-02-100	3.9	2.2	12.2
D68-SWB-05-100	3.9	2.2	12.2

### Local Distributor:

### Manufacturer

**A+ Corporation, LLC**

41041 Black Bayou Road

Gonzales, LA 70737

Call for expert product application assistance:

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