

**SDB Series  
Blower Purge Desiccant Dryers  
1200-12000 SCFM**



**Solving the Problems of  
Moisture Contamination**

# the problem:

**Water jeopardizes everything you want your compressed air system to do. It ruins product and fouls processes.**

- In addition to water, compressed air can also contain dirt, wear particles, bacteria and lubricating fluid.
- Sludge blocks valves and orifices, causing high maintenance and costly air leaks.



# the *Sullair* solution:

**A Sullair Series SDB Blower Purge Desiccant Dryer will remove these destructive contaminants thus resulting in the following benefits:**

- Improves productivity and reduced maintenance costs.
- Air lines won't corrode; no need to drain or purge.
- Pneumatic equipment runs at peak efficiency.
- Increases service life of air tools, motors and cylinders.
- Improves both product and process quality.
- Pneumatic instruments and controls operate reliably.
- Painting/finishing operations quality is improved.

## **Here's how:**

The adsorption principle used in this design is simple, robust and flexible. Continuous drying is accomplished by the operation of two desiccant towers. Compressed air is dried through one tower while the other desiccant tower is being regenerated. The regeneration heating cycle of the desiccant is accomplished using a hot air flow delivered by an atmospheric blower and external electric heater. The regeneration cooling cycle is performed using a small flow of dry compressed air taken from the dryer outlet to ensure dewpoint performance.



## Features

- Carbon steel inlet and switching valves with Teflon seat and double-acting pneumatic actuator.
- Constant pressure dewpoint of -40°F (-40°C) PDP.
- Fully automatic, interlocked operation controlled by PLC on a fixed 8 hour NEMA time cycle.
- Dryers operate between zero and full rated capacity without adjustment.
- Positive centrifugal blower with long-shaft motor and intake filter.
- Electric heater with incoloy sheath element.
- Energy efficient temperature independent heating and cooling cycles.
- Separate low and high voltage electrical panels.
- Heater housing and hot air lines are insulated to conserve utilities.
- Dryer cycling, blower and heater are totally interlocked with the controls to eliminate the possibility of system malfunction.
- NEMA 12 electrical class.
- Designed in accordance with ASME VIII Div. 1. and ANSI 31.1

Other approvals on request.

**5 year**  
WARRANTY

*5-Year Warranty is standard on valves and tanks.*

## Options

- Filters mounted option with three valve bypass filters and bypass valves are mounted on a separate skid. (Piping between dryer and filter skid to be provided by installer.)
- Dewpoint Dependent Switching (DDS) system for full operational economy and energy management.
- Electric/Steam generation heater.
- Rigid copper control air tubing.
- Rigid stainless steel control air tubing.
- Consult Sullair for additional options.



# Sullair SDB specifications

## SDB Blower Purge Desiccant Air Dryers

Dryer Model	Max Inlet Flow (scfm) <sup>1</sup>	Connection Size	Required Pre- and After-Filter <sup>2</sup>	Height (in)	Width (in)	Depth (in) <sup>3</sup>	Standard Voltage	Total Weight (lbs)
SDB-1200	1200	3" FLG	MPH/MPR 1315	113	102	60	460/3/60	8060
SDB-1600	1600	3" FLG	PH/PR 1600	125	102	60	460/3/60	9550
SDB-1900	1900	4" FLG	PH/PR 2100	119	120	61	460/3/60	10900
SDB-2200	2200	4" FLG	PH/PR 2750	119	120	61	460/3/60	12140
SDB-2700	2700	4" FLG	PH/PR 2750	131	120	61	460/3/60	13950
SDB-3700	3700	6" FLG	PH/PR 4100	140	131	72	460/3/60	19600
SDB-4300	4300	6" FLG	PH/PR 7000	153	131	72	460/3/60	23800
SDB-5600	5600	6" FLG	PH/PR 7000	154	156	84	460/3/60	29900
SDB-7000	7000	8" FLG	PH/PR 7000	160	188	95	460/3/60	39260
SDB-8700	8700	8" FLG	PH/PR 11000	168	188	95	460/3/60	48500
SDB-10500	10500	8" FLG	PH/PR 11000	CF	CF	CF	460/3/60	CF
SDB-12000	12000	10" FLG	PH/PR 17000	CF	CF	CF	460/3/60	CF

### NOTES

Optional voltage is 575/3/60.

<sup>1</sup> Maximum rated inlet flow at CAGI conditions of 100 deg F and 100 psig.

<sup>2</sup> Filters are sold separately unless 3V option is purchased.

<sup>3</sup> Depth does not include mounted mufflers which project beyond the dryer skid in some models.

Weights and dimensions are approximate and do not include 3V option. Contact Sullair for drawings.

### Additional Data:

Flow Range @ 100 psi g (7 bar g): up to 12,000 cfm (340 m<sup>3</sup>/min)  
 Pressure Dewpoint: -40°F (-40°C) pdp Nominal  
 Air Quality Class: ISO 8573.1 Class 1.2.1 Nominal  
 Maximum Operating Pressure: 140 psig (9.6 bar g)  
 Minimum Operating Pressure: 60 psig (4.1 bar g)  
 Standard Inlet Temperature: 100°F (38°C)  
 Maximum Inlet Temperature: 120°F (49°C)  
 Minimum Inlet Temperature: 50°F (10°C)

### Technical Features:

- Dryer alarm contacts and alarm panel indication
- Chamber and purge air pressure gauges
- Chamber and purge air temperature indicators
- Pilot air filter
- Switching failure alarm
- Blower failure alarm
- Heater failure alarm
- High heater sheath temperature alarm + shutdown
- Dryer status indication – chamber drying/chamber heater/dryer in standby

Sullair is committed to a program of continuous improvement. Features and specifications may change without notice. Consult your Sullair representative or authorized Sullair distributor.



Member



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