

Your benefits with Deltech/Delair DB-Series Blower type adsorption dryers.

- No loss of compressed air for regeneration or cooling
- Pressure drop less than 0.1 bar at full capacity
- Sophisticated PLC control and communication unit
- Parallel drying phase for steady dewpoint performance
- Low maintenance and long life desiccant

Design specifications of DB series adsorption dryers

- Fully automatic continuous operation
- Steel support frame with foundation holes
- Pressure vessels according to various industrial design codes and regulations
- "Heavy-duty" blower system
- "Easy-access" heater system with single replaceable elements
- Control box to IP54
- Temperatur and pressure indicators on both vessels
- Compressor Start-Stop function linked into drying cycle
- Dewpoint controlled cycle with indication and dewpoint setting
- PLC (Siemens S-series) controls offering:
 - fully automatic cycle
 - alarm indication for all important dryer functions
 - memory of alarm history
 - fast-run cycle test
 - required service interval alarm
 - communication port to remote systems
- Thermal insulation of all hot parts
- Top to bottom flow direction avoiding fluidisation of adsorbent bed
- HQ-Delsorb adsorbents for most economical use
- Piping and vessels of carbon steel
- Epoxy painting RAL 9001
- All butterfly valves for lowest pressure drop

Available options according customer specifications, such as:

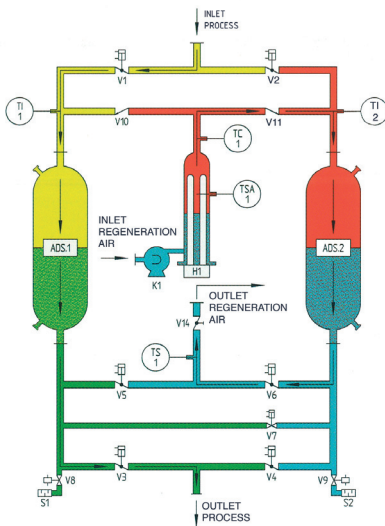
- Installed filtration package
- By-pass over complete dryer
- Integrated refrigeration system (ask for DHD series documentation)
- various makes PLC
- Outdoor installation
- Pressure dewpoint -70°C
- Steam regeneration system



Design conditions	Minimum	Design	Maximum
Operating pressure	5 bar (g)	7 bar (g)	12 bar (g)
Inlet air temperature	+5°C	+35°C	+45°C
Ambient temperature	+0°C	+25°C	+40°C



Model	Capacity DB (m³/h)*	Dimensions (mm)			Weight (kg)	Connection (flange)	Power cons.		
		Width (A)	Depth (B)	Height (C)			Fan kW	Heater kW	Average kW
DB-22	650	1900	1480	2870	1300	DN 50	3,0	8,1	5,9
DB-23	980	1950	1540	2905	1600	DN 50	3,0	12,0	8,9
DB-24	1520	2300	1590	2985	1950	DN 80	3,0	18,3	13,1
DB-25	1970	2400	1640	2864	2150	DN 80	3,0	23,4	16,5
DB-26	2580	2700	1730	2972	2700	DN 80	5,5	30,6	21,3
DB-27	3290	2800	1840	2972	3250	DN 100	5,5	38,7	26,7
DB-28	4330	3350	1695	3136	4200	DN 150	5,5	51,0	35,7
DB-29	5610	3550	2180	3220	5400	DN 150	7,5	66,3	46,5
DB-30	6950	3800	2280	3327	6900	DN 150	7,5	81,6	57,5
DB-31	8410	5070	2190	2800	8200	DN 150	11,0	100,8	70,3
DB-32	9500	5270	2360	3050	9800	DN 200	11,0	113,4	78,7
DB-33	11000	5370	2445	3050	11000	DN 200	11,0	132,3	92,8
DB-34	12100	5470	2550	3050	12000	DN 200	11,0	144,9	101,2
DB-35	13720	5670	2643	3100	13500	DN 200	15,0	163,8	113,8



Drying and regeneration cycle of DB dryers:

- Drying time is 6 hours minimum. The dewpoint controller will extend until complete saturation is reached.
- Depressurisation time of saturated adsorber lasts 10 minutes.
- Heating period is temperature controlled (TS1) and relates to the saturation degree of the desiccant.
- Cooling with ambient air during 75 minutes.
- Pressurisation time of regenerated adsorber lasts 10 minutes.
- Stand-by time until adsorption time of drying adsorber is completed.
- Change-over period of parallel drying for 10 minutes.

Top to Bottom flow direction in all cycle phases offer following advantages:

- No desiccant fluidisation at compressor start-up
- The fan is not loaded with warm, humid and dusty regeneration air.
- Pushed forward "hot zone" in cooling phase optimizes regeneration effect.
- Pre-loading by ambient moisture will not reach the outlet of the drying adsorber.
- No compressed air is needed to support the cooling process.

F1 Multiplier for different inlet pressures in bar (g)						
bar (g)	5	6	7	8	9	10
F1	0.69	0.85	1.00	1.12	1.25	1.37

F2 Multiplier for different inlet temperatures in °C			
°C	+30	+35	+40
F2	1.30	1.00	0.74

In case of deviating conditions or performance requirements, please consult the factory.

DDS-DB-01-2008-EN