

HEATED BLOWER PURGE DESICCANT TYPE DBP COMPRESSED AIR DRYERS

Dalgakiran DBP heated blower purge desiccant air dryers provide constant $-40\text{ }^{\circ}\text{C}$ pressure dew point. These dryers are designed to supply clean and very dry compressed air for critical applications without using compressed air as purge air that increases the total efficiency of the system. Pre-filters and after-filters are supplied along with Dalgakiran Heatless Air Dryers to keep the air stream clean and maintain the integrity of the desiccant medium. A very reliable electronic controller makes sure that the dryer operates perfectly all through the service life of the dryer.

PRINCIPLE OF OPERATIONS

A centrifugal blower and high efficiency heater eliminates the use of valuable compressed air to be used for desiccant regeneration. The completely automatic drying system uses blower to pull ambient Air and pass it through the heater. This hot Air stream flows opposite to drying flow direction. Hot Air above $200\text{ }^{\circ}\text{C}$ regenerates the moisture inside desiccant bed and strips it completely of all moisture. The advanced control system monitors the dew point and adjusts the heating / regeneration accordingly thereby providing valuable energy savings. The heater circuit is completely insulated ensuring maximum heating efficiency.



PLC CONTROLLER

DBP Blower Purge Dryers has a very reliable electronic controller makes sure that the dryer operates perfectly all through the servicelife of the dryer. Touch screen PLC is capable of showing the cycles as well as the valves which operate on real time. It also shows the dew point (if applicable).

User friendly multi-languag PLC helps the end users understand the operation system any field issues easily.

ACTIVATED ALUMINA

Dalgakiran uses a mixture of adsorption media in its heatless range of desiccant dryers to achieve consistent dewpoint. Activated Alumina, Molecular Sieve and Silica Gel are used in varying ratios depending on the application.

DBP Series

Blower Purge Heated Desiccant Air Dryers

DALGAKIRAN

TECHNICAL DATA

Model	Capacity*		Connection Size	Voltage**	Maximum working Pressure	Maximum ambient Temperature	Maximum Inlet Temperature	Included Filter and Type	Dimensions (mm)			Weight
	m ³ /min	cfm			bar	°C	°C		Length	Width	Height	Kg
DBP 850	14,2	500	G 2"	400V/3/50Hz	10	40	45	GKO 851 MX+MY+MP(H)	1296	1180	2299	C/F
DBP 1000	16,7	589	G 2"	400V/3/50Hz	10	40	45	GKO 1210 MX+MY+MP(H)	1200	1310	2415	C/F
DBP 1250	20,8	736	DN80	400V/3/50Hz	10	40	45	GKO 1820 MX+MY+MP(H)	1610	1270	2468	C/F
DBP 1500	25,0	883	DN80	400V/3/50Hz	10	40	45	GKO 1820 MX+MY+MP(H)	1610	1270	2563	C/F
DBP 1800	30,0	1059	DN80	400V/3/50Hz	10	40	45	GKO 1820 MX+MY+MP(H)	1563	1515	2479	C/F
DBP 2200	36,7	1295	DN80	400V/3/50Hz	10	40	45	GKO 2220 MX+MY+MP(H)	1563	1455	2789	C/F
DBP 2700	45,0	1589	DN80	400V/3/50Hz	10	40	45	GKO 2700 MX+MY+MP(H)	1615	1514	2836	C/F
DBP 3200	53,3	1883	DN100	400V/3/50Hz	10	40	45	F 3200 MX+MY+MP(H)	1710	1660	3054	C/F
DBP 3600	60,0	2119	DN100	400V/3/50Hz	10	40	45	F 4300 MX+MY+MP(H)	1710	1660	3268	C/F
DBP 4400	73,3	2590	DN100	400V/3/50Hz	10	40	45	F 4300 MX+MY+MP(H)	1975	2492	2910	C/F
DBP 5000	83,3	2943	DN125	400V/3/50Hz	10	40	45	F 6500 MX+MY+MP(H)	2045	2560	3382	C/F
DBP 6300	105,0	3708	DN150	400V/3/50Hz	10	40	45	F 6500 MX+MY+MP(H)	2090	2963	3328	C/F
DBP 7200	120,0	4238	DN150	400V/3/50Hz	10	40	45	F 8500 MX+MY+MP(H)	2020	3363	3047	C/F
DBP 8800	146,7	5179	DN150	400V/3/50Hz	10	40	45	F 8500 MX+MY+MP(H)	2020	3363	3341	C/F
DBP 10800	180,0	6357	DN200	400V/3/50Hz	10	40	45	F 11000 MX+MY+MP(H)	2492	3481	3765	C/F

- DALGAKIRAN reserves its rights to change the specifications without any prior notice.

* Capacity is given at atmospheric Pressure at 20 °C (ISO 1217) in accordance with norms ISO 7183-8573-1 and Pneurop 6611- Class 4-7 bar -35 °C inlet - 25 °C ambient.

** Consult sales representative for optional voltages

PRE FILTER (X)

Efficiency rating:
1 Micron particle
removal & 0.5mg/m³
oil removal

FINE FILTER (Y)

Efficiency rating:
0.01 Micron particle
removal & 0.01mg/m³
oil removal

PARTICLE FILTER (P)

Efficiency rating:
5 Micron particle
removal
(removes desiccant
particles after the dryer)

ACTIVATED CARBON FILTER (A)

Efficiency rating:
0.01 Micron particle
removal & 0.003mg/m³
oil removal

CORRECTION FACTORS FOR DBP AIR DRYERS

Bar	4.5	5	6	7	8	9	10
		0,69	0,75	0,88	1	1,12	1,25
Inlet Temp. °C	20	25	30	35	40	45	-
	1	1	1	1	0,80	0,73	-

DBP Dryer Sizing Example:

If a compressor delivers 35 m³/min at 6 bar, the dryer inlet temperature is 40 °C. please choose your dryer as follows:

Dryer Capacity = 35 / 0,88 / 0,80 = 49,7 m³/min

The correct dryer model for this application is DBP 3200.