B-DRY SERIES

HEATLESS REGENERATED ADS. DRYERS

operating pressure	**4** to **16** bar
operating temp.range	**1,5** to **60** °C
pressure dew points	**-40**°C (**-25**°C / **-70**°C)
flow rate	**110** to **1000** Nm³/h

APPLICATIONS

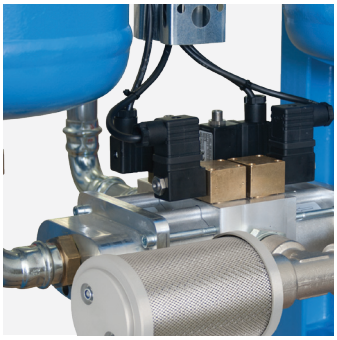
- compressed air systems

DESCRIPTION

B-DRY adsorption dryers are designed for continuous separation of water vapour from the compressed air thus reducing the pressure dew point. B-DRY series dryer consists of two columns, filled with desiccant beds, controller with LCD display, valves, manometers, support construction and suitable filter housings with the required filter element. Adsorption takes place under pressure in the first column while the second column regenerates with a portion of already dried compressed air at ambient pressure.

When the first column is saturated to a certain level column switch-over is carried out and the process of adsorption continues in the second column without any drop of pressure at the outlet of the dryer. Regeneration of saturated desiccant is possible because a small portion of already dry compressed air is decompressed and when expanded it becomes extremely dry.

This portion of extremely dry decompressed air also called “purge air” is then fed through the saturated column in the reverse flow direction in order to remove the adsorbed water molecules from the desiccant and release them back to the ambient.

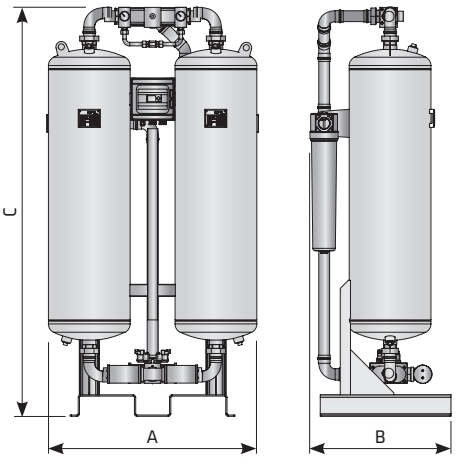


TECHNICAL DATA

Type	Connection IN/OUT	Nominal volume flow		Dimensions			Mass
		Inlet[1]	Outlet[2]				
	''	[Nm³/h]	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg
B-DRY 110	G1''	110	86,0	650	390	1570	126
B-DRY 150	G1''	150	117,5	700	410	1820	142
B-DRY 200	G1''	200	157,0	700	450	1600	180
B-DRY 250	G1''	260	204,0	700	450	1850	220
B-DRY 300	G1 1/2''	320	251,0	900	530	1620	255
B-DRY 400	G1 1/2''	410	321,5	900	530	1870	275
B-DRY 600	G1 1/2''	590	462,5	850	700	1940	355
B-DRY 800	G2''	770	603,5	1000	710	1980	470
B-DRY 1000	G2''	1000	784,0	1050	710	1980	560

Voltage, frequency	230V, 50/60 Hz
Power consumption	<60 W
Protection class	IP 65
Filter (inlet)*	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
DPD control	optional
Input for stand-by	standard

DEW POINT - CORRECTION FACTORS - C_D			
Operat. temperature [°C]	-25	-40	-70
Operat. temperature [F]	-13	-40	-94
Correction factor C_D	1,1	1	0,7



OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}								
Operat. temperature [°C]	25	30	35	40	45	50	55	60
Operat. temperature [F]	77	86	95	104	113	122	131	140
Correction factor C_{OT}	1	1	1	0,97	0,87	0,80	0,64	0,51

OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor C_{OP}	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

(1) Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.

(2) Outlet flow refers to typical assumption during regeneration phase for operating at nominal inlet flow conditions. Outlet flow includes average air losses of approximately 17,3 %.

* If dryer is supplied without inlet filter compressed air class 1 (ISO 8753-1) for solid particles and oil should be provided to the inlet of the dryer.