

**4 to 11 bar**

operating pressure

1,5 to 50 °C

ambient operating temp. range

1,5 to 42,5 °C

inlet air temperature range

-40 °C

pressure dew points

390 to 20.200 Nm³/h

flow rate

0 %

avg. comp. air consumption

DESCRIPTION

R-DRY BVL 400-10000 adsorption dryers are designed for continuous separation of water vapour from compressed air thus lowering the dew point. R-Dry BVL dryers have two columns that operate alternately. Adsorption takes place under pressure in the first column while the second column is regenerated (heated ambient air for desorption + cooling with water cooled air in a closed loop). Due to cooling in a closed loop BVL type of dryer is suitable for applications where low PDP is required at hotter and more humid ambient conditions. Due to cooling with water cooled air in a closed loop BVL type of dryers don't consume any compressed air for the operation.

A dryer consists of two columns, filled with desiccant beads, blower, heater, air-water heat exchanger, controller with an LCD display, valves, manometers, and support construction. A proven and robust design enables efficient and reliable operation, fast installation and simple maintenance.

APPLICATIONS

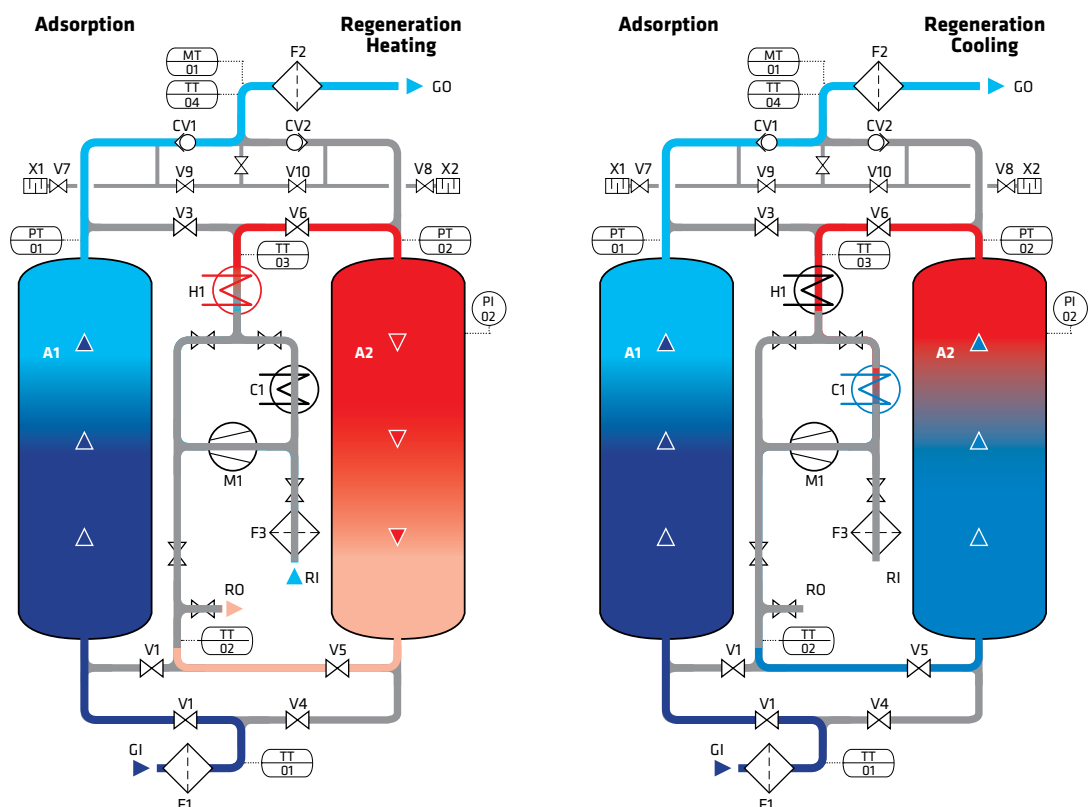
- Compressed air systems

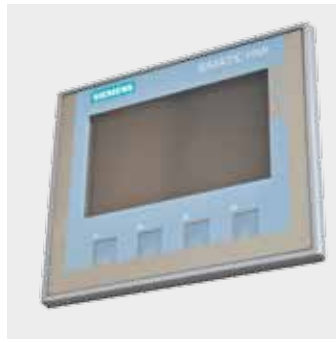
R-DRY BVL SERIES

VACUUM REGENERATION WITH CLOSED LOOP



- A1-2 pressure vessel
- F1 inlet filter (super fine coalescing)
- F2 outlet filter (dust)
- V1-6 ball valve with pneumatic actuator
- V7-10 angle seated valve with pneumatic actuator
- CV1-2 check valve
- TT1-4 temperature transducer
- PI1-2 pressure indicator
- PT1-2 pressure transducer
- DT1 dew point transducer
- M1 blower
- H1 heater
- F3 regeneration air filter
- GI air inlet
- GO air outlet
- RI regeneration air inlet
- RO regeneration air outlet
- ES1-2 expansion silencer
- C1 water cooled heat exchanger





TECHNICAL DATA

Type	Connection IN/OUT ⁽²⁾	Nominal volume flow	Dimensions			Mass	Blower power	Heater power	Filter type
		Inlet ⁽¹⁾							
	DN	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg	kW	kW	
R-DRY 400 BVL	DN50	390	1.200	850	2.250	1.400	1,3	3,5	AF 0476
R-DRY 600 BVL	DN50	590	1.500	900	2.350	1.900	1,6	5,5	AF 0706
R-DRY 780 BVL	DN50	780	1.750	1.000	2.450	2.300	1,6	7	AF 0706
R-DRY 1000 BVL	DN50	930	1.750	1.250	2.450	2.400	1,6	8	AF 0946
R-DRY 1200 BVL	DN80	1.150	1.900	1.100	2.450	3.000	1,6	10	AF 1506
R-DRY 1600 BVL	DN80	1.600	1.900	1.350	2.500	3.200	4	14	AF 1756
R-DRY 2000 BVL	DN100	1.950	2.200	1.150	2.600	4.420	4	17	AF 2006
R-DRY 2500 BVL	DN100	2.530	2.350	1.150	2.750	5.000	7,5	22	AF 2406
R-DRY 3000 BVL	DN100	2.990	2.500	1.150	2.750	5.200	8,5	26	BF 300
R-DRY 3600 BVL	DN100	3.680	2.800	1.350	2.850	6.240	8,5	32	BF 450
R-DRY 4100 BVL	DN125	4.100	3.000	1.350	2.850	6.700	8,5	35	BF 450
R-DRY 5000 BVL	DN125	4.990	3.200	1.450	2.950	7.700	15	45	BF 600
R-DRY 6500 BVL	DN150	6.550	3.520	1.750	3.050	9.400	15	56	BF 900
R-DRY 7700 BVL	DN150	7.700	3.700	2.000	3.100	10.300	15	70	BF 900
R-DRY 10000 BVL	DN200	10.250	4.300	2.200	3.550	15.600	22	95	BF 1200
R-DRY 12000 BVL	DN200	11.700	4.400	2.500	3.550	-	-	-	BF 1200
R-DRY 14000 BVL	DN200	14.800	4.800	2.600	3.650	-	-	-	BF 1500
R-DRY 16000 BVL	DN250	16.000	5.000	3.200	3.650	-	-	-	BF 1800
R-DRY 18000 BVL	DN250	18.200	5.200	3.500	4.200	-	-	-	BF 1800
R-DRY 20000 BVL	DN250	20.200	6.000	3.500	4.350	-	-	-	BF 2500

OPERATING PRESSURE - CORRECTION FACTORS - C_{op}

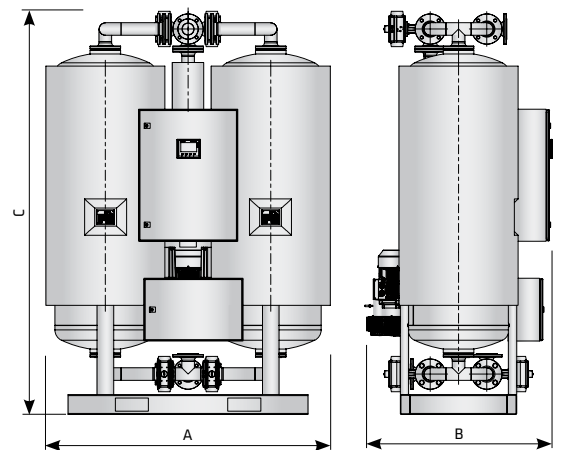
Operating pressure [bar]	4	5	6	7	8	9	10	11
Operating pressure [psi]	58	72	87	100	115	130	145	160
Correction factor C _{op}	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{ot}

Operating temperature [°C]	25	30	35	40	42,5
Operating temperature [°F]	77	86	95	104	108
Correction factor C _{ot}	1	1	1	0,7	0,52

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

⁽²⁾ Refers to dryer inlet and outlet connection without filters



Protection class	IP 54
Filter (inlet)	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
Column insulation	optional
Blower suction conditions	Max 50 °C, 35 % RH

omega air

Air and Gas Treatment



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