



DESICCANT AIR DRYER

EXR & EXD/CT Series

Desiccant Dryer Components



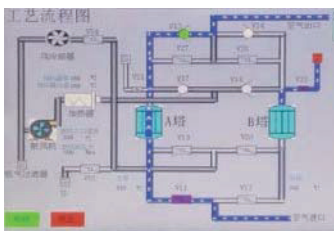
Electrical heater

- Stainless steel material, simple structure
 - High mechanical strength, high efficiency and long service life.
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Air blower

- High mechanical efficiency, low noise, stable and reliable operation
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PLC program controller

- With LCD touch screen display working process and easy for user to check and setting the parameter.
 - The PLC program can auto switch the valve
 - With alarm, Interlocking function, effectively monitor the operation process of the equipment, ensure reliable operation, convenient operation and maintenance.
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Activated alumina

- Good adsorption capacity, high strength, high water resistance, easy regeneration for system
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Pneumatic valve

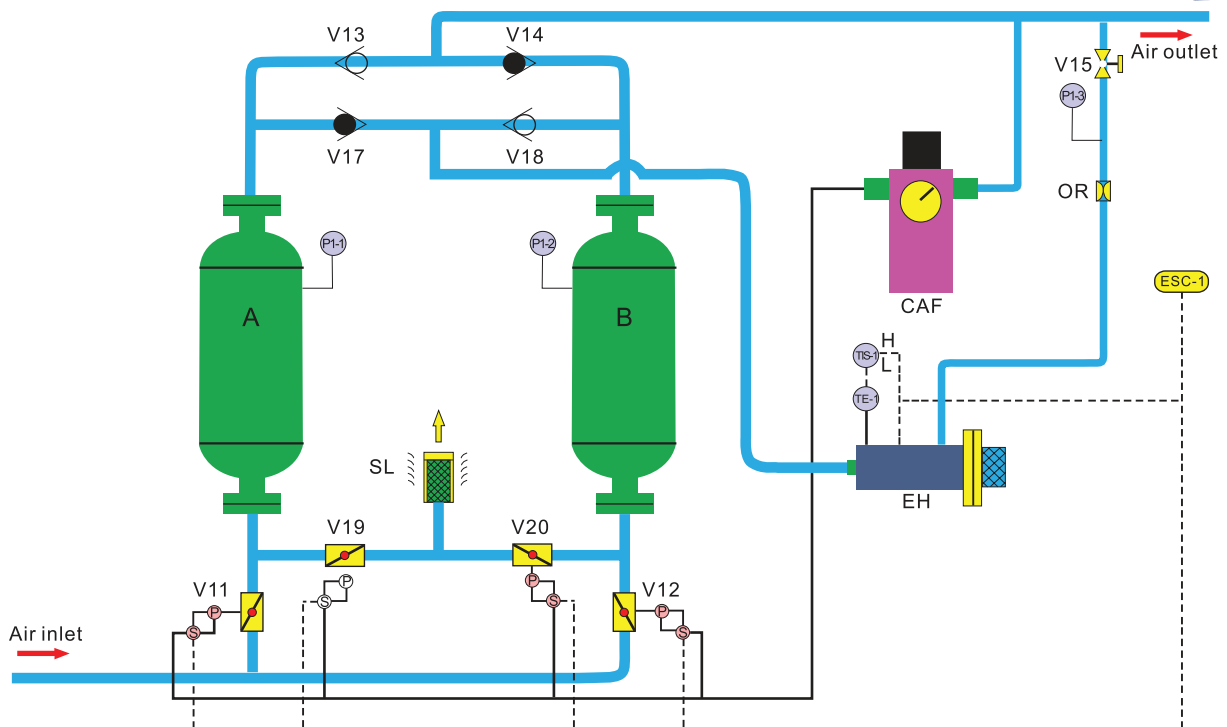
- Pneumatic butterfly valve • Big rotational torque
- Response quickly • Long service life
- With nice seal performance, the seal parts use PTEE material
- With the feedback switch for the valve signal.

EXR Series | Heated Desiccant Dryer

Description

Heated desiccant air dryer with heater on system compare to heatless dryer. The desiccant adsorb the moisture under the working pressure , use the heating compressed air on regeneration process. For that way, can save air loss than heatless type dryer.

System Flowchart



Main Parts

● Heater element



● Control system



● Check valve



● Activated alumina



● Solenoid valve T



● Pneumatic T valve



● Pneumatic butterfly valve



Working Principle

Heated regenerating desiccant dryers are adopted with techniques of twin tower variable pressure absorbing and heating regeneration. During the regeneration progress, the depressurized expanded dry air is heated to a certain degree to enable it with more absorbing capability while reducing the use of regenerated air compressed air is dried through one tower while the other desiccant tower is being regenerated. The principle of the heated regenerating desiccant dryer is: One absorbing tower performs absorbing under working pressure while another one distills some of the compressed air from the main pipe then depressurizes and heats is for regenerated use. The heated regenerated desiccant contains less water and improves the absorbing capability.

Technical Specification

- Energy-saving with air loss lower than 6%
- High performance of the whole system by long switch cycle.
- Main parts use famous brands to ensure equipment continuous stability.
- Temperature protection is adopted to avoid damage from overheating.
- Adopted with low power consumption electrical components to improve the heating capability.

Optional Configuration

- Molecular sieve
- Dew point displaying, dew point as low as -70 °C
- High dew point alarm/lock, Higher inlet temperature up to 50 °C
- Mounted air filters
- PLC LCD monitor, communication port, and special voltages

Technical Specifications: EXR

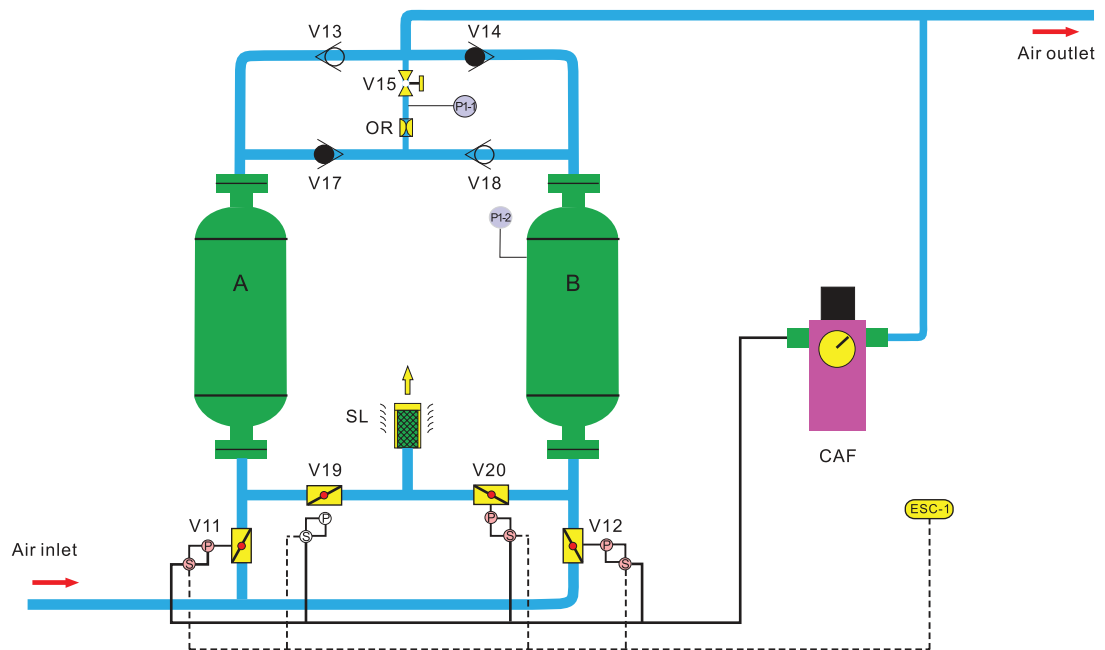
MODEL	Flow Capacity			Air Conn. (BSP)	Dimensions			Weight (kg)	Heater (kw)
	m3/min	m3/h	CFM		Width	Length	Height		
EXR-5	0.7	42	25	1/2"	500	690	915	180	0.9
EXR-10	1.6	96	56	1"	500	690	1298	190	0.9
EXR-20	2.6	156	92	1"	500	780	1324	280	1.5
EXR-30	3.8	228	134	1"	540	860	1350	320	1.5
EXR-60	7	420	247	1-1/2"	700	1010	1558	480	2.4
EXR-75	8.5	510	300	1-1/2"	700	1010	1785	540	2.4
EXR-100	11.5	690	406	2"	800	1240	2232	650	4.5
EXR-120	13.5	810	476	2"	800	1240	2232	690	4.5
EXR-150	17	1020	600	DN65	860	1280	2260	780	5.4
EXR-200	23	1380	812	DN65	860	1700	2477	920	7.5
EXR-250	27	1620	953	DN65	930	1320	2570	1050	9
EXR-300	34	2040	1200	DN80	960	1700	2626	1200	10.8
EXR-400	45	2700	1588	DN100	1060	1750	2646	1530	15
EXR-500	55	3300	1941	DN100	1060	1850	2646	1750	18
EXR-600	65	3900	2294	DN125	1240	2160	2784	2230	22.5
EXR-800	87	5220	3071	DN150	1440	2416	2827	2710	28
EXR-1000	110	6600	3883	DN150	2120	2980	2990	4130	37.5
EXR-1200	130	7800	4589	DN150	2220	3080	3030	4700	45
EXR-1500	160	9600	5648	DN200	2320	3180	3316	5800	56
EXR-2000	210	12600	7413	DN200	2520	3380	3360	7370	72
EXR-2500	260	15600	9178	DN250	2720	3580	3596	9020	90
EXR-3000	320	19200	12708	DN250	2970	3580	3606	11900	112.5
EXR-3500	360	21600	14473	DN300	3220	3720	3720	13100	124.8
EXR-4000	410	24600	14473	DN300	3370	3910	3910	14800	145.8
EXR-5000	510	30600	18003	DN300	3600	4200	4200	16000	170

EXD Series | Heatless Desiccant Dryer

Description

Heatless dryer adopt pressure swing adsorption technology--the desiccant with different adsorb effect under the different working pressure. The desiccant adsorb the moisture under the working pressure , and desorption under the atmospheric pressure. The system with two tanks for the periodic auto switching, one tank on adsorption, the other one on regeneration, simple structure and easy to maintenance.

System Flowchart



Main Parts

● PLC controller



● High quality pneumatic valve



● Reliable no leak check valve



● Pneumatic T valve 0.7-13m³/min



● Low failure rate solenoid valve



● Good adsorption capacity desiccant



Working Principle

The heatless regenerating dryer utilizes the desiccant selectable feature absorbing the water in the compressed air to dry the air. Because the desiccant will reach saturation after using for a certain time, it has to be regenerated by the dry air to restore its drying capability. 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 by using itself dried air decompresses to normal pressure. Two towers will switch their functions by a certain switch cycle to enable it's continuous supplying dry air.

Technical Specification

- The large-capacity design ensures a stable outlet dew point that can be adapted to the aging of the desiccant and the load changes.
- Main parts use famous brands to guarantee the stability of the system.
- The integrated product enables the installation to be very easy.

Optional Configuration

- Molecular sieve + activated alumina
- Dew point transducer, dew point as low as -70 °C
- High dew point alarm/lock
- Mounted air filters
- PLC LCD monitor and communication port
- Different inlet / outlet connection
- Higher protection grade up to Ip65

Technical Specifications: EXD

MODEL	Flow Capacity			Air Conn. (BSP)	Dimensions			Weight (kg)
	m3/min	m3/h	CFM		Width	Length	Height	
EXD-5	0.7	42	25	1/2"	500	690	915	120
EXD-10	1.6	96	56	1"	500	690	1298	190
EXD-20	2.6	156	92	1"	500	780	1250	280
EXD-30	3.8	228	134	1"	540	860	1260	320
EXD-60	7	420	247	1-1/2"	700	1010	1558	480
EXD-75	8.5	510	300	1-1/2"	700	1010	1727	540
EXD-100	11.5	690	406	2"	800	1240	1958	650
EXD-120	13.5	810	476	2"	800	1240	2232	690
EXD-150	17	1020	600	DN65	860	1280	2360	780
EXD-200	23	1380	812	DN65	860	1300	2477	920
EXD-250	27	1620	953	DN65	930	1700	2570	1050
EXD-300	34	2040	1200	DN80	960	1750	2626	1200
EXD-400	45	2700	1588	DN100	1060	1850	2646	1530
EXD-500	55	3300	1941	DN100	1120	1900	2730	1750
EXD-600	65	3900	2294	DN125	1240	2160	2784	2230
EXD-800	87	5220	3071	DN150	1240	2416	2784	2710
EXD-1000	110	6600	3883	DN150	1560	2560	2812	4130
EXD-1200	130	7800	4589	DN150	1660	2660	2852	4700
EXD-1500	160	9600	5648	DN200	1760	2760	3136	5800
EXD-2000	210	12600	7413	DN200	1860	2960	3180	7370
EXD-2500	260	15600	9178	DN250	2060	3320	3170	9020
EXD-3000	320	19200	12708	DN250	2170	3740	3190	11900
EXD-3500	360	21600	14473	DN300	2310	4150	3210	13100
EXD-4000	410	24600	14473	DN300	2490	4810	3300	14800
EXD-5000	510	30600	18003	DN350	2700	5000	3500	16000

Technical Specifications: KXD+CT

MODEL	Flow Capacity			In/Out	Dimensions			Weight (kg)	Carbon Tank	Activated Alumina
	m3/min	m3/h	CFM	Connection	Width	Length	Height		Size	Weight (kg)
KXD-5	0.7	42	25	1/2"	500	1050	915	180	7.5L	14
KXD-10	1.6	46	56	1"	500	1050	1298	290	14L	32
KXD-20	2.6	156	92	1"	500	1190	1250	420	26.3L	52
KXD-30	3.8	228	134	1"	540	1320	1276	480	42L	76
KXD-50	6	360	212	1-1/2"	600	1470	1805	680	71L	120
KXD-60	7	420	247	1-1/2"	700	1645	1588	720	78L	140
KXD-75	8.5	510	300	1-1/2"	700	1645	1727	810	89L	170
KXD-100	11.5	690	406	2"	800	1900	1958	980	130L	230
KXD-120	13.5	810	476	2"	800	1900	2232	1040	160L	270
KXD-150	17	1020	600	DN65	860	1960	2360	1170	197L	340
KXD-200	23	1380	812	DN65	860	2000	2477	1380	266L	460
KXD-250	27	1620	953	DN65	930	2600	2570	1580	320L	540
KXD-300	34	2040	1200	DN80	960	2700	2626	1800	400L	680
KXD-400	45	2700	1588	DN100	1060	2830	2646	2300	540L	900
KXD-500	55	3300	1941	DN100	1120	2900	2730	1630	656L	1100
KXD-600	65	3900	2294	DN125	1240	3300	2784	3350	808L	1300
KXD-800	87	5220	3071	DN150	1500	3700	2827	4070	1100L	1740
KXD-1000	110	6600	3883	DN150	1700	4150	3038	6200	1400L	2200

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