

ADSORPTION AIR DRYERS



Heatless Desiccant Dryers
PDP= $-20^{\circ}\text{C}/-40^{\circ}\text{C}/-70^{\circ}\text{C}$



7/24
HOT LINE
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CNK DEW POINT CONTROLLER

Controls the dew point of compressed air. CNK automatically organizes the flow of compressed air in the towers before dewpoint reaches to higher values than the set dew point. Therefore the outlet dewpoint of compressed air gets down to a lower value.

CNK prevents compressed air loss by extending operation time depending on dewpoint. CNK provides cost savings up to 75% by organizing operation times of towers depending on dewpoint.

Alarm function warns when necessary.

CNK is used as accessories in AK-DAB and AK-DAC systems and comes readily available.

AK-DAB; AK-DAC ADSORPTION DRYER



Two towers are filled with adsorbent materials. They are designed to filter H_2O molecules by sieving. H_2O molecules which adhere to the surface of adsorbent material can be easily separated by the interaction of molecular forces from where they are hold. While the first tower dries the incoming air, the second tower is regenerated with the reverse-direction regenerative air. This is a physical reaction and can be repeated countless times

This operation is alternated between two towers at normally 10 min intervals. Process goes in the order of drying, balancing and regenerating. The amount of air used for regeneration is approximately -15% for AK-DAB model, -30% for AK-DAC model and -15% for AK-DAB-20C. Besides, during the balancing operation the air in one tower is discharged.

Absorbent material is designed for these kinds of applications. When the system is protected from contamination from compressor oil (which is at levels less than $0,003 \text{ mg/m}^3$) of protection, replacement is suggested after a period of 5 years.

OPERATION

With the help of these applications, it is possible to reach -40°C ($0,117 \text{ gr/m}^3$) pressure dew-point with the model AK-DAB and -70°C ($0,0033 \text{ gr/m}^3$) pressure dew-point with the model AK-DAC, -20°C ($0,88 \text{ gr/m}^3$) pressure dew-point with the model AK-DAB-20C.

STANDARD ACCESSORIES

Electronic controller, at inlet; water separator with zero loss, oil alarm sensor, 1 micron dust and 0.5 mg/m^3 oil at outlet filter, $0,1 \text{ micron}$ dust filter, $0,01 \text{ mg/m}^3$ oil filter.

ADSORPTION AIR DRYER TECHNICAL DATA

Model Dewpoint: -20	Air Flow Nm ³ / min	Connection Size BSP	Power V/ph/Hz	Height	Width	Depth	Weight
AKDAB-66-20C	0,066	1/4"	230/1/50	450	350	150	15
AKDAB-266-20C	0,26	1/4"	230/1/50	550	350	150	22
AKDAB-534-20C	0,53	1/2"	230/1/50	600	430	200	25
AKDAB-800-20C	0,8	1/2"	230/1/50	670	430	200	40
AKDAB-1000-20C	1,0	1/2"	230/1/50	720	500	350	45
AKDAB-1600-20C	1,6	1/2"	230/1/50	850	580	350	47
AKDAB-2000-20C	2	1/2"	230/1/50	900	580	350	55
AKDAB-2400-20C	2,4	1/2"	230/1/50	1060	580	350	60
AKDAB-3200-20C	3,2	3/4"	230/1/50	1150	590	420	90
AKDAB-4000-20C	4	3/4"	230/1/50	1260	840	390	100
AKDAB-5344-20C	5,34	1"	230/1/50	1460	840	390	125
AKDAB-6400-20C	6,4	1"	230/1/50	1650	840	390	150
AKDAB-8000-20C	8	1"	230/1/50	1700	840	390	180
AKDAB-10000-20C	10	1 1/4"	230/1/50	1800	840	390	200
AKDAB-12000-20C	12	1 1/2"	230/1/50	1950	840	390	225
AKDAB-14000-20C	14	1 1/2"	230/1/50	2030	900	650	300
AKDAB-16000-20C	16	2"	230/1/50	2110	900	650	400
AKDAB-19000-20C	19	2"	230/1/50	2200	900	650	460
AKDAB-21000-20C	21	2"	230/1/50	2200	1000	700	525
AKDAB-24000-20C	24	2"	230/1/50	2250	1050	750	650
AKDAB-32000-20C	32	2 1/2"	230/1/50	2280	1120	860	780
AKDAB-40000-20C	40	2 1/2"	230/1/50	2400	1300	1010	950
AKDAB-50000-20C	50	3"	230/1/50	2500	1300	1010	1220
AKDAB-60000-20C	60	3"	230/1/50	2530	1300	1190	1300
AKDAB-80000-20C	80	3"	230/1/50	2600	1800	1410	1550
AKDAB-100000-20C	100	NW100	230/1/50	2630	1800	1410	2150
AKDAB-150000-20C	150	NW125	230/1/50	2700	1920	1410	2850
AKDAB-190000-20C	190	NW150	230/1/50	2950	2500	1800	3750
AKDAB-240000-20C	240	NW200	230/1/50	3200	2500	1800	4350
AKDAB-320000-20C	320	NW200	230/1/50	3800	2750	2000	5350

OUR COMPANY MAY CHANGE THE VALUES IN THE CATALOGUE ACCORDING TO THE RESEARCH AND DEVELOPMENT STUDIES.

ADSORPTION AIR DRYER TECHNICAL DATA

Model Dewpoint: -40	Air Flow Nm ³ / min	Connection Size BSP	Power V/ph/Hz	Height	Width	Depth	Weight
AKDAB-33	0,033	1/4"	230/1/50	450	350	150	15
AKDAB-133	0,13	1/4"	230/1/50	550	350	150	22
AKDAB-267	0,26	1/2"	230/1/50	600	430	200	25
AKDAB-400	0,4	1/2"	230/1/50	670	430	200	40
AKDAB-533	0,53	1/2"	230/1/50	720	500	350	45
AKDAB-800	0,8	1/2"	230/1/50	850	580	350	47
AKDAB-1000	1	1/2"	230/1/50	900	580	350	55
AKDAB-1200	1,2	1/2"	230/1/50	1060	580	350	60
AKDAB-1600	1,6	3/4"	230/1/50	1150	590	420	90
AKDAB-2000	2	3/4"	230/1/50	1260	840	390	100
AKDAB-2667	2,67	1"	230/1/50	1460	840	390	125
AKDAB-3200	3,2	1"	230/1/50	1650	840	390	150
AKDAB-4000	4	1"	230/1/50	1700	840	390	180
AKDAB-5000	5	1 1/4"	230/1/50	1800	840	390	200
AKDAB-6000	6	1 1/2"	230/1/50	1950	840	390	225
AKDAB-7000	7	1 1/2"	230/1/50	2030	900	650	300
AKDAB-8000	8	2"	230/1/50	2110	900	650	400
AKDAB-9500	9,5	2"	230/1/50	2200	900	650	460
AKDAB-10500	10,5	2"	230/1/50	2200	1000	700	525
AKDAB-12000	12	2"	230/1/50	2250	1050	750	650
AKDAB-16000	16	2 1/2"	230/1/50	2280	1120	860	780
AKDAB-20000	20	2 1/2"	230/1/50	2400	1300	1010	950
AKDAB-25000	25	3"	230/1/50	2500	1300	1010	1220
AKDAB-30000	30	3"	230/1/50	2530	1300	1190	1300
AKDAB-40000	40	3"	230/1/50	2600	1800	1410	1550
AKDAB-50000	50	NW100	230/1/50	2630	1800	1410	2150
AKDAB-75000	75	NW125	230/1/50	2700	1920	1410	2850
AKDAB-95000	95	NW150	230/1/50	2950	2500	1800	3750
AKDAB-120000	120	NW200	230/1/50	3200	2500	1800	4350
AKDAB-160000	160	NW200	230/1/50	3800	2750	2000	5350

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ADSORPTION AIR DRYER TECHNICAL DATA

Model Dewpoint: -70	Air Flow Nm ³ / min	Connection Size BSP	Power V/ph/Hz	Height	Width	Depth	Weight
AKDAC-33	0,033	1/4"	230/1/50	450	350	150	15
AKDAC-133	0,13	1/4"	230/1/50	550	350	150	22
AKDAC-267	0,26	1/2"	230/1/50	600	430	200	25
AKDAC-400	0,4	1/2"	230/1/50	670	430	200	40
AKDAC-533	0,53	1/2"	230/1/50	720	500	350	45
AKDAC-800	0,8	1/2"	230/1/50	850	580	350	47
AKDAC-1000	1	1/2"	230/1/50	900	580	350	55
AKDAC-1200	1,2	1/2"	230/1/50	1060	580	350	60
AKDAC-1600	1,6	3/4"	230/1/50	1150	590	420	90
AKDAC-2000	2	3/4"	230/1/50	1260	840	390	100
AKDAC-2667	2,67	1"	230/1/50	1460	840	390	125
AKDAC-3200	3,2	1"	230/1/50	1650	840	390	150
AKDAC-4000	4	1"	230/1/50	1700	840	390	180
AKDAC-5000	5	1 1/4"	230/1/50	1800	840	390	200
AKDAC-6000	6	1 1/2"	230/1/50	1950	840	390	225
AKDAC-7000	7	1 1/2"	230/1/50	2030	900	650	300
AKDAC-8000	8	2"	230/1/50	2110	900	650	400
AKDAC-9500	9,5	2"	230/1/50	2200	900	650	460
AKDAC-10500	10,5	2"	230/1/50	2200	1000	700	525
AKDAC-12000	12	2"	230/1/50	2250	1050	750	650
AKDAC-16000	16	2 1/2"	230/1/50	2280	1120	860	780
AKDAC-20000	20	2 1/2"	230/1/50	2400	1300	1010	950
AKDAC-25000	25	3"	230/1/50	2500	1300	1010	1220
AKDAC-30000	30	3"	230/1/50	2530	1300	1190	1300
AKDAC-40000	40	3"	230/1/50	2600	1800	1410	1550
AKDAC-50000	50	NW100	230/1/50	2630	1800	1410	2150
AKDAC-75000	75	NW125	230/1/50	2700	1920	1410	2850
AKDAC-95000	95	NW150	230/1/50	2950	2500	1800	3750
AKDAC-120000	120	NW200	230/1/50	3200	2500	1800	4350
AKDAC-160000	160	NW200	230/1/50	3800	2750	2000	5350

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CORRECTION FACTORS

CORRECTION FACTORS FOR DIFFERENT OPERATING PRESSURES

BAR	4	5	6	7	8	9	10	11	12	13
Fc:T	0,60	0,74	0,86	1	1,10	1,20	1,30	1,35	1,40	1,46

CORRECTION FACTORS FOR INLET TEMPERATURE OPERATING PRESSURES

°C	25	30	35	40	45	50
Fc:T	1,10	1,05	1	0,9	0,70	0,60

REFERENCE CONDITIONS

- ▶ Operating Pressure : 7 bar
- ▶ Operating Temperature : 35°C
- ▶ Room Temperature : 25°C
- ▶ Pressure Dewpoint : -20°C / -40°C / -70°C

*Available in different voltages and frequency

LIMIT CONDITIONS

- ▶ Max. Operating Pressure : 16 bar
- ▶ Max. Operating Temperature : 50°C
- ▶ Max. Room Temperature : 50°C

*Please Check Correction Factors

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DRY AIR CUTTING SYSTEM 40 BAR (g)



DRY AIR CUTTING SYSTEM 13-15 BAR (g)





DRY AIR CUTTING SYSTEM 40 BAR (g)



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DRY AIR CUTTING SYSTEM 13-15 BAR (g)