



DA Series Downstream Equipments

DALGAKIRAN
COMPRESSED AIR TECHNOLOGIES

DA SERIES 130 / 185 / 250 / 300 / 360 / 440 / 575 / 680 / 850 / 1000 / 1250
/ 1500 / 1800 / 2200 / 2700 / 3200 / 3600 4400 / 5000 / 6300 / 7200 / 8800 / 10800

Dalgakiran DA Heatless 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. 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 OPERATION

The twin tower design allows for continuous adsorption of water vapor from compressed air by using the hygroscopic desiccant with high crush strength and a high surface / volume ratio. Drying is accomplished by passing compressed air through one desiccant bed adsorbing moisture while the other is being simultaneously regenerated with the expanded purge air.

Regeneration of desiccant is accomplished without the use of heat. The wet bed is dried by diverting a small portion of the super - dry air from the outlet at near atmospheric pressure. The purge flow rate is adjustable to suit the specific outlet conditions (desired dewpoint). The super dry air flows in a counter direction through the wet bed, sweeping all the water vapour previously absorbed by the desiccant. DA ensures pressure equalization in the twin towers prior to switching. This prevents line surge and minimizes desiccant attrition.



The tower being reactivated will be gradually re-pressurized at the end of its reactivation cycle before switchover take place. Purge flow and de-pressurization are in downward direction, counter flow to the drying air flow.

> PLC IS STANDARD

DA Desiccant 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-lingual 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. Silica Gel a re used in varying ratios depending on the application.

TECHNICAL DATA

MODEL	Inlet Flow Rate		Inlet-Outlet Connection Size	Pressure Drop (mbar)	DIMENSIONS			Total Weight (Kg)	Active Alumina (Kg)	VOLTAGE
	(m ³ /h)	(scfm)			Width	Length	Height			
DA 130	130	80	1"	≤ 130	757	450	1315	110	43	230-1-50/60Hz.
DA 185	185	100	1"	≤ 130	760	450	1567	130	48	230-1-50/60Hz.
DA 250	250	150	1"	≤ 130	650	760	1589	160	77	230-1-50/60Hz.
DA 300	300	200	1 1/2"	≤ 130	742	900	1615	215	85	230-1-50/60Hz.
DA 360	360	215	1 1/2"	≤ 130	742	900	1615	215	90	230-1-50/60Hz.
DA 440	440	250	1 1/2"	≤ 130	650	900	1792	340	124	230-1-50/60Hz.
DA 575	575	300	1 1/2"	≤ 130	650	900	1990	450	192	230-1-50/60Hz.
DA 680	680	400	2"	≤ 130	750	1000	2164	535	202	230-1-50/60Hz.
DA 850	850	500	2"	≤ 130	800	1050	2303	700	265	230-1-50/60Hz.
DA 1000	1000	600	2"	≤ 130	860	1120	2397	785	364	230-1-50/60Hz.
DA 1250	1250	700	DN 80	≤ 130	1010	1300	2310	980	407	230-1-50/60Hz.
DA 1500	1500	800	DN 80	≤ 130	1010	1300	2547	1210	448	230-1-50/60Hz.
DA 1800	1800	1000	DN 80	≤ 130	1010	1392	2415	1250	500	230-1-50/60Hz.
DA 2200	2200	1250	DN 80	≤ 130	1110	1490	2482	1525	690	230-1-50/60Hz.
DA 2700	2700	1500	DN 80	≤ 130	1210	1949	2245	1870	836	230-1-50/60Hz.
DA 3200	3200	1750	DN 100	≤ 130	1210	1920	2460	2215	950	230-1-50/60Hz.
DA 3600	3600	2000	DN 100	≤ 130	1210	1830	2596	2300	1130	230-1-50/60Hz.
DA 4400	4400	2500	DN 100	≤ 130	1210	1920	2486	2800	1394	230-1-50/60Hz.
DA 5000	5000	3000	DN 125	≤ 130	1350	1920	2960	3180	1640	230-1-50/60Hz.
DA 6300	6300	4000	DN 150	≤ 130	1650	2500	2760	4000	2230	230-1-50/60Hz.
DA 7200	7200	4500	DN 150	≤ 130	1650	2500	2924	4570	2624	230-1-50/60Hz.
DA 8800	8800	5000	DN 150	≤ 130	1650	2500	3200	5585	2788	230-1-50/60Hz.
DA 10800	10800	6000	DN 200	≤ 130	1720	2500	3720	6855	3100	230-1-50/60Hz.

Inlet temperature	: 35 °C
Working pressure	: 7 bar
Maximum working pressure	: 16 bar
Maximum working temperature	: 50 °C
Maximum inlet temperature	: 50 °C
Pressure Dew Point	: -40 °C

X PRE FILTER	Y PRE FILTER	P AFTER FILTER
Efficiency rating: 1 Micron particle removal & 0.5mg/m3 oil removal	Efficiency rating: 0,01 Micron particle removal & 0.01mg/m ³ oil removal	Efficiency rating: 5 Micron particle removal (removes desiccant particles after the dryer)

! For special requirements please contact **Dalgakiran** technical department

The dryers are designed according to Pneurop, conditions as per ISO7183

Bar g	4,5	5	6	7	8	9	10
	0,69	0,75	0,88	1	1,08	1,12	1,2
Inlet Temp. °C	20	25	30	35	40	45	50
	1	1	1	1	0,8	0,73	0,59

