

## Downstream Equipments

# HDA Series

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

**hertz**<sup>®</sup>  
KOMPRESSOREN



Hertz HDA 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 Hertz 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.

HDA Heatless Desiccant Dryers are equipped with very special valves and desiccants in order to perform very well and have one of the lowest pressure drops available in the Market.

### Hertz HDA Heatless Desiccant Air Dryers 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).

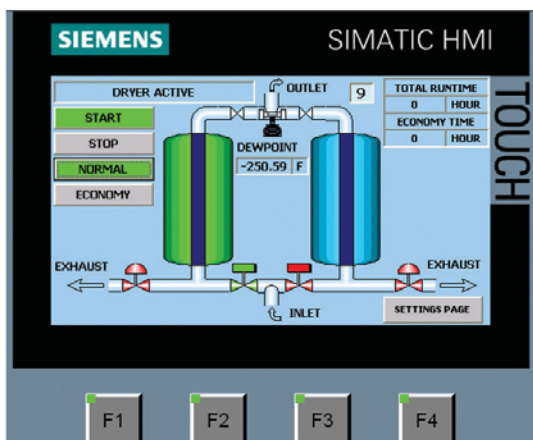
The super dry air flows in a counter direction through the wet bed, sweeping all the water vapour previously absorbed by the desiccant.

HDA 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

HRD 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

Hertz 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.

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# SPECIFICATIONS



Model	Inlet - Outlet Connection Size	Inlet Flow Rate		Pressure Drop (mbar)	Dimensions mm			Total Weight Kg	Active Alumina Kg	Voltage
		(m³/h)	(scfm)		Width	Length	Height			
HDA 130	1"	130	80	≤ 130	757	450	1315	110	43	230-1-50/60Hz.
HDA 185	1"	185	100	≤ 130	760	450	1567	130	48	230-1-50/60Hz.
HDA 250	1"	250	150	≤ 130	650	760	1589	160	77	230-1-50/60Hz.
HDA 300	1 1/2"	300	200	≤ 130	742	900	1615	215	85	230-1-50/60Hz.
HDA 360	1 1/2"	360	215	≤ 130	742	900	1615	215	90	230-1-50/60Hz.
HDA 440	1 1/2"	440	250	≤ 130	650	900	1792	340	124	230-1-50/60Hz.
HDA 575	1 1/2"	575	300	≤ 130	650	900	1990	450	192	230-1-50/60Hz.
HDA 680	2"	680	400	≤ 130	750	1000	2164	535	202	230-1-50/60Hz.
HDA 850	2"	850	500	≤ 130	800	1050	2303	700	265	230-1-50/60Hz.
HDA 1000	2"	1000	600	≤ 130	860	1120	2397	785	364	230-1-50/60Hz.
HDA 1250	DN 80	1250	700	≤ 130	1010	1300	2310	980	407	230-1-50/60Hz.
HDA 1500	DN 80	1500	800	≤ 130	1010	1300	2547	1210	448	230-1-50/60Hz.
HDA 1800	DN 80	1800	1000	≤ 130	1010	1392	2415	1250	500	230-1-50/60Hz.
HDA 2200	DN 80	2200	1250	≤ 130	1110	1490	2482	1525	690	230-1-50/60Hz.
HDA 2700	DN 80	2700	1500	≤ 130	1210	1949	2245	1870	836	230-1-50/60Hz.
HDA 3200	DN 100	3200	1750	≤ 130	1210	1920	2460	2215	950	230-1-50/60Hz.
HDA 3600	DN 100	3600	2000	≤ 130	1210	1830	2596	2300	1130	230-1-50/60Hz.
HDA 4400	DN 100	4400	2500	≤ 130	1210	1920	2486	2800	1394	230-1-50/60Hz.
HDA 5000	DN 125	5000	3000	≤ 130	1350	1920	2960	3180	1640	230-1-50/60Hz.
HDA 6300	DN 150	6300	4000	≤ 130	1650	2500	2760	4000	2230	230-1-50/60Hz.
HDA 7200	DN 150	7200	4500	≤ 130	1650	2500	2924	4570	2624	230-1-50/60Hz.
HDA 8800	DN 150	8800	5000	≤ 130	1650	2500	3200	5585	2788	230-1-50/60Hz.
HDA 10800	DN 200	10800	6000	≤ 130	1720	2500	3720	6855	3100	230-1-50/60Hz.

### X PRE FILTER

Efficiency rating:  
1 Micron particle removal & 0.5mg/m³ oil removal

### Y PRE FILTER

Efficiency rating:  
0.01 Micron particle removal & 0.01mg/m³ oil removal

### P PRE FILTER

Efficiency rating:  
5 Micron particle removal (removes desiccant particles after the dryer)



For special requirements please contact Hertz technical department

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

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	1.20
Inlet Temp. °C	20	25	30	35	40	45	50
	1	1	1	1	0.80	0.73	0.59

