ultrafilter HEATLESS HL
Adsorption Dryer

NEW

ULTRAFILTER
THE FILTRATION MANUFACTURER

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Why drying compressed air?

■ Compressed air is used in almost all areas of industrial manufacturing as a source of energy or processing. Compressed air needs to be dry, oilfree and clean in order to prevent costly production downtimes and losses in the production quality. The atmospheric air drawn in contains harmful substances, dirt particles and moisture in the form of water vapour, which condenses in compressed air pipes and can lead to considerable damages (corrosion, freezing etc.).

Adsorption dryers

■ Beneath the fridge dryers the adsorption dryers represent the most common drying method for compressed air. Maximum efficiency and the highest operation safety, coupled with low operation costs are features conveying the advantages of the adsorption dryers. State of the art technology and selected materials are the basis for high operational safety.

HEATLESS HL adsorption dryers

■ **HEATLESS HL** adsorption dryer are produced for a wide range of applications and are delivered ready to connect and easy to install.

■ With 12 sizes for volume flows from 1400 to 9500 m³/h and pressure dew points of -20 °C, -40 °C or -70°C customized solutions are offered. While matching perfectly to compressors requirements, no over-sizing is necessary. The demand for regeneration air remains constant.

■ The water load of the dryer depends on the actual operation conditions. If the inlet conditions, airflow, pressure or ambient temperatures vary, the amount of water load will also vary. With a continuous dew point measurement at the outlet of the dryer, the newly developed "UPEC" control will determine the actual amount of moisture that enters the dryer and will assess the optimum time when the dryer requires regeneration whilst maintaining a constant selected dew point.

This leads to considerable savings in regeneration air. Example: A heatless dryer designed for 2.000 m³/h, 35 °C inlet temperature and 7 bar (g) operating pressure requires approx. 300 m³/h regeneration air during a fixed circle. At an average compressed air requirement of 60% , an average inlet temperature of 30 °C and average pressure of 7,2 bar the water load is reduced to approx. 45% of the design value. On average the dryer is now only using 135 m³/h and is therewith saving 165 m³/h. According to compressor type and condition this is equivalent to a power consumption of up to 20 kW. At a full cost price of 2 cents per m³ of generated compressed air and 8.000 operating hours per year the yearly saving is accumulated to Euro 26.400,--.

■ An intermittent control is already integrated in the standard series of ultrapure high-efficiency dryer. The dryer can be linked to the compressor and is self-adjusting to the compressor start stop mode, which leads to considerable savings in regeneration air.

■ All operation data of the dryer are shown on the display of the control system.

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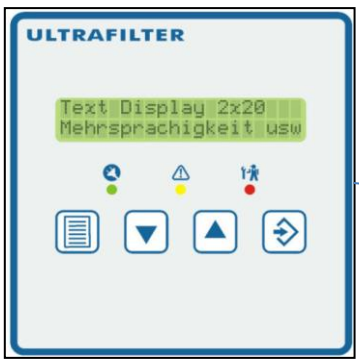
Compact design

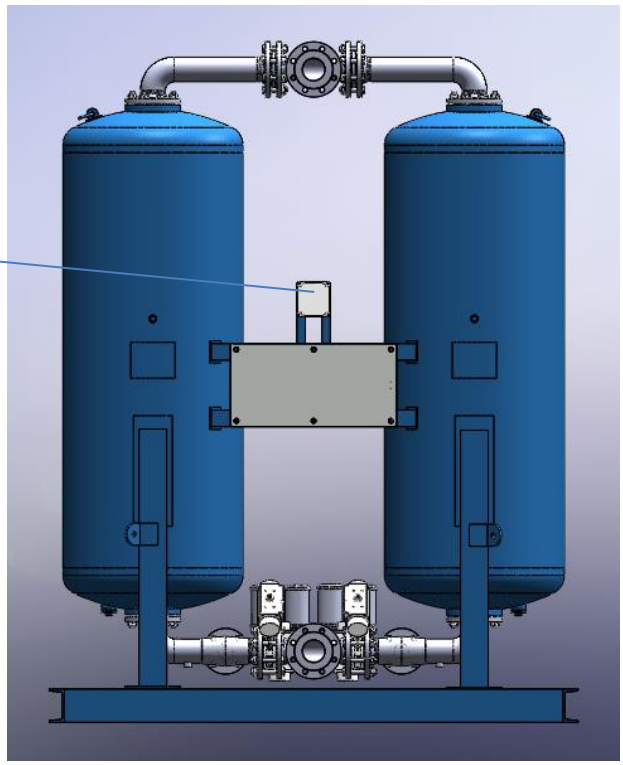
Due to the compact design the new series of HL dryers are saving installation space and shipping costs.
The symmetric design with the central position of the UPEC control system are service- and maintenance friendly. Service components are easy to maintain, because they are accessible from the front side of the dryer. Pre- and afterfilters can be installed in front position, easy to access for maintenance. The modular system design allows to modify a **HEATLESS HL** dryer to an **OF** oif free air system (see options).

HEATLESS HL Standards:

- high energy efficiency
- high reserve capacity
- butterfly valves with pneumatic actuators
- pneumatic control box
- reliability
- safe operation, easy to maintain
- UPEC 2012 control panel
- high corrosion resistance due to galvanised piping
- easy to ship due to compact dimensions
- Dew point -20°C up to -70°C

UPEC 2012 control system





Quality product

Only the best components were used for the production of the ultrafilter high-efficiency compressed air dryers. According to our quality safety program in appliance to DIN ISO 9001 these products are declared „quality product“. Together with the maintenance- and user-friendly construction, absolute operation safety and reliability is ensured. Therefore products of these performance are marked „Made in Germany“.
All ultrafilter **HEATLESS HL** adsorption dryers guarantee lowest possible total cost of ownership.

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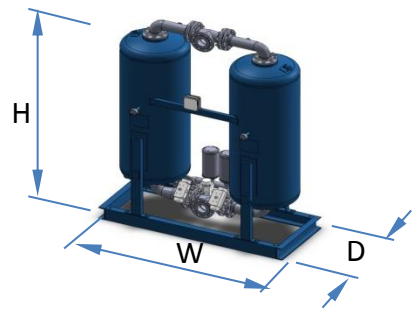
Technical Data

Size	Volume Flow	Connection	Dimensions			Weight
			Width	Depth	Height	
Heatless HL	V_{nom}	DIN	W	D	H	
	m³/h	DIN 2633	mm	mm	mm	kg
1400	1.400	DN 80	1.200	900	2.200	1.100
1700	1.700	DN 80	1.300	950	2.300	1.250
2000	2.000	DN 80	1.400	1.000	2.300	1.400
2500	2.500	DN 100	1.600	1.100	2.400	1.800
3000	3.000	DN 100	1.700	1.200	2.400	2.000
3500	3.500	DN 100	1.800	1.250	2.450	2.300
4000	4.000	DN 150	1.900	1.400	2.700	2.700
5000	5.000	DN 150	2.100	1.400	2.800	3.100
6000	6.000	DN 150	2.300	1.500	2.900	3.600
7000	7.000	DN 150	2.500	1.600	2.900	4.000
8200	8.200	DN 150	2.700	1.700	2.900	4.500
9500	9.500	DN 200	2.900	1.900	3.100	5.000

Volume Flow V_{nom} in m³/h related to 20 °C and 1 bar abs suction condition of compressor, 7 bar g operating pressure and 35 °C inlet temperature.



HEATLESS HL Options:

- dew point control
- Pre- and afterfilter skid mounted
- anti freezing trace heating
- bypass complete with valves
- start up device
- flow meter
- pneumatic control panel
- easy to modify to **OF** oil free air system
- shrinking foil packaging
- alternative power supply (24 V_{DC}, 110 V_{AC})
- ANSI connection at battery limits
- Crash frame

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