

# ultrafilter VARIOBLO® Heat Regenerated Adsorption Dryer

**NEW**



*Kronsbein ultrafilter*®

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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 out in compressed air pipes and can lead to considerable damages (corrosion, freezing etc.).

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

■ Adsorption dryers are made of two - in some applications more - compressed air vessels filled with desiccant. Whilst one vessel is drying the incoming compressed air, the other vessel is regenerated.

■ Within the range of adsorption dryers we differ between heatless regenerated dryers and heat regenerated dryers. While heatless dryers are regenerated by a partial flow of more than 15 % of the dried compressed air, heat regenerated adsorption dryers generally manages the regeneration process without compressed air consumption.

■ Therefore heat regenerated adsorption dryers are much more economical as their energy requirements for regeneration is much lower than those of heatless regenerated adsorption dryers despite using heater and blower for regeneration.



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## Quality products Made in Germany

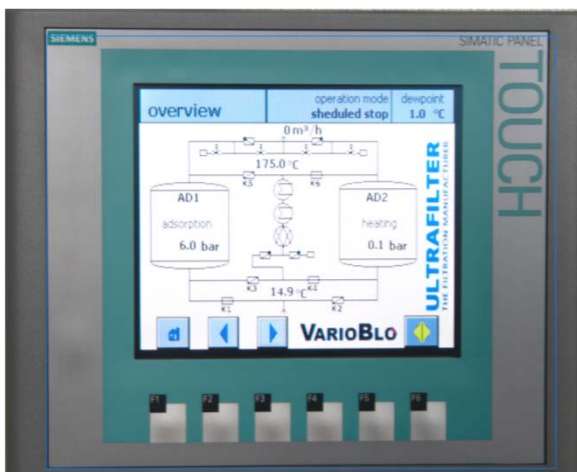
■ In order to produce heat regenerated dryers a considerable experience is required. ultrafilter GmbH looks back on a long lasting experience in developing and producing heat regenerated adsorption dryers for different applications.

■ Only the best components that meet the high quality standards of production are used. The Quality Assurance system according to ISO 9001 means that all appliances receive the "Quality Product" certification.

■ All ultrafilter purification components convince by their service- and maintenance-friendly construction. ultrafilter adsorption dryer ensure highest operational safety and reliability and guarantee lowest possible total cost of ownership.

## ultrafilter VARIOBLO® Standards:

- high energy efficiency
- zero purge, with purge option (Two in One)
- high reserve capacity
- reliability
- safe operation, easy to maintain
- touch panel for service-friendly operation
- pneumatic box for sensitive components
- high corrosion resistance due to HT galv. pipework
- easy to ship due to compact dimensions
- modular design, easy to adapt to LOOP version
- 50 Hz or 60 Hz power supply
- switch over control



Kronsbein ultrafilter®

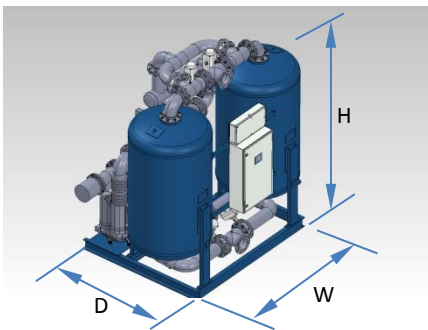
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## Technical Data

| Size<br>VARIOBLO | Volume<br>Flow<br>$V_{nom}$<br>m³/h | Connection<br>DIN2633<br>DN | Dimensions       |                  |                   | Weight<br>kg | Installed<br>Power<br>Blower<br>kW | Installed<br>Power<br>Heater<br>kW | Option:<br>LOOP<br>Cooling<br>Water<br>m³/h |
|------------------|-------------------------------------|-----------------------------|------------------|------------------|-------------------|--------------|------------------------------------|------------------------------------|---|
|                  |                                     |                             | Width<br>W<br>mm | Depth<br>D<br>mm | Height<br>H<br>mm |              |                                    |                                    |   |
| 0400             | 400                                 | 50                          | 1.750            | 1.030            | 2.260             | 1.200        | 1,5                                | 6,0                                | 0,5   |
| 0700             | 700                                 | 50                          | 1.800            | 1.150            | 2.310             | 1.400        | 2,0                                | 9,0                                | 1,0   |
| 1000             | 1000                                | 80                          | 1.920            | 1.280            | 2.390             | 1.500        | 2,0                                | 12,0                               | 1,5   |
| 1400             | 1400                                | 80                          | 1.920            | 1.320            | 2.420             | 1.900        | 3,0                                | 16,5                               | 2,0   |
| 1700             | 1700                                | 80                          | 2.120            | 1.450            | 2.480             | 2.300        | 3,0                                | 19,5                               | 2,5   |
| 2000             | 2000                                | 80                          | 2.160            | 1.470            | 2.550             | 2.800        | 5,5                                | 24,0                               | 2,5   |
| 2500             | 2500                                | 100                         | 2.260            | 1.600            | 2.630             | 3.400        | 5,5                                | 30,0                               | 3,0   |
| 3000             | 3000                                | 100                         | 2.320            | 1.540            | 2.630             | 3.600        | 5,5                                | 36,0                               | 3,5   |
| 3500             | 3500                                | 100                         | 2.750            | 1.910            | 2.790             | 4.000        | 9,5                                | 45,0                               | 4,0   |
| 4000             | 4000                                | 150                         | 2.800            | 1.790            | 2.890             | 4.800        | 9,5                                | 45,0                               | 4,5   |
| 5000             | 5000                                | 150                         | 2.910            | 2.010            | 2.870             | 5.600        | 9,5                                | 60,0                               | 5,5   |
| 6000             | 6000                                | 150                         | 3.400            | 2.380            | 2.910             | 6.300        | 15,0                               | 70,5                               | 6,5   |
| 7000             | 7000                                | 150                         | 3.500            | 2.300            | 2.990             | 7.200        | 15,0                               | 81,0                               | 8,0   |
| 8200             | 8200                                | 150                         | 3.600            | 2.500            | 3.100             | 8.000        | 23,0                               | 94,5                               | 9,0   |
| 9500             | 9500                                | 200                         | 3.700            | 2.600            | 3.300             | 9.400        | 23,0                               | 108,0                              | 10,0  |

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.



### Guidance for determining the dryer size:

Inlet volume flow **Veff**: 2.000 m³/h  
 Operating pressure: 8 bar g  
 Inlet temperature: 40 °C  
 Required PDP: - 40 °C  
 Correction factor **K 1**: 1,04  
 Correction factor **K 2**: 1,00  
 $V_{corr} = \frac{V_{eff}}{K_1 \times K_2} = \frac{2.000 \text{ m}^3/\text{h}}{0,81 \times 1,00} = 685 \text{ m}^3/\text{h}$

**Selected dryer size : 0425**

### ultrafilter VARIOBLO® Options:

- dew point control
- skid mounted filters
- bypass complete with valves
- start up device
- heat insulation
- proximity switches for valve position control
- flow meter
- special control systems S7 300 instead of S7 200
- data logger
- pressure relief valves
- shrinking foil packaging





### **ultrafilter trykluftprogram:**

ultrafilter valideret trykluft program indenfor, filter, Køletørrer samt adsorptionstørrer.

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ultrafilter validated Compressed air filter program with filter, dryer and desiccant dryer.



### **Trykluftfilter:**

Trykluftfilter til brug for håndværkere, værksteder og til mindre kritiske applikation i industrien.

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Compressed air filter for use by craftsmen, workshops, and for less critical applications in the industry.



### **Procesfiltrering:**

Procesfilter for luft og Gas samt væskefiltrering fra 3M / Cuno , sterilfilter, dampfilter samt Membran filtrering.

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Process filter for air / gas and liquid filtration, sterile filter steam filter, and Membran filtration.



### **Vandfilter**

Stort program for vandfilter fra Cuno & 3M

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A wide range of water filter from Cuno & 3M



### **Nitrogen og Oxygen systemer**

Produktion af egen nitrogen eller oxygen, med et modul opbygget system som kan udvides efter behov.

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Producing own nitrogen or oxygen, with a modular system which can be expanded as needed.



### **Måleinstrumenter**

Måleudstyr til måling og overvågning af trykluft- og nitrogen udstyr.

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Measuring equipment for measuring and monitoring of compressed air and nitrogen plant.



### **Service:**

Vi tilbyder opstart og montering af alle vores produkter. ogkan tilbyde serviceaftaler på alle vores produkter.

Vi har samarbejdspartner i Danmark, Sverige, Norge, Finland, og Island.

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We offer start-up and installation of all our products. And we can offer service on all our products. We have partner in Denmark, Sweden, Norway, Finland, Iceland.

### **ultrafilter Skandinavien ApS**

info@ultra-filter.dk • www.ultra-filter.dk

Telefon : +45 82 30 30 20