

# ultrafilter (india) pvt.ltd.

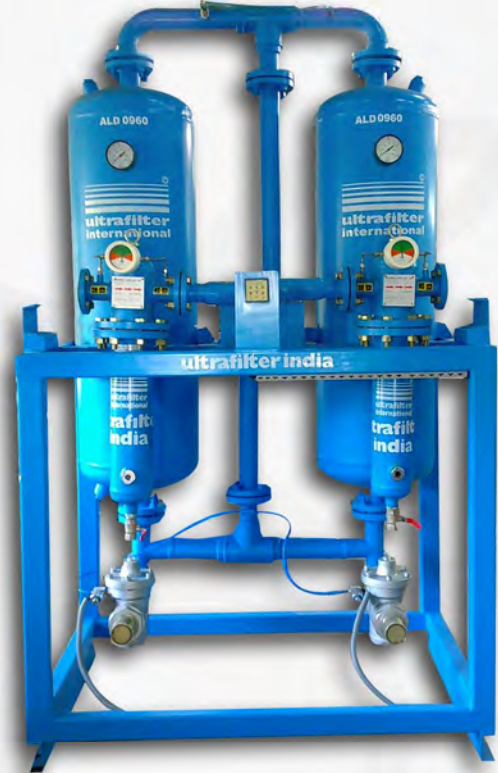
Pure & World Wide



(An ISO 9001-2008 Certified Company)



... compressed air energy  
which is pure and dry is  
absolutely essential



## Air Dryers

Fully Automatic Heatless Dryers & Externally Heated Dryers

"MSD Series", "ALD Series", "HRE Series"



# ADSORPTION DRYERS ..... MSD / ALD Series

The application of compressed air used in hi-tech machinery is highly essential. The damp atmospheric air compressed to 7 bar and then cooled down to working temperature results in condensation of water vapour in the compressed air line. The condensate binds the surrounding atmospheric gases such as CO<sub>2</sub>, CO, H<sub>2</sub>S and

becomes highly aggressive with PH Values down to 4 and 3. The mixture of the condensate, atmospheric impurities and lubricating oil from the compressor is the destructive factor in all compressed air systems leading to downtime, increased wear, higher energy consumption, lower product quality and delays in delivery schedules.

## PRODUCT DATA

High-efficiency ALD / MSD Dryers have everything you need to produce Clean, Dry, Compressed Air : Control system, prefilters, dryers, after-filter, condensate drains and silencers, all as a single complete unit, and you save on installation. The complete dryer is easy to setup and install.

ALD / MSD dryers operate continuously between 0% and 100% of its rated capacity, providing constant compressed air quality.

## EXCLUSIVE FEATURES

- ◆ Dew Point as low as -70°C
- ◆ Aggressive Gases like CO<sub>2</sub>, CO and H<sub>2</sub>S are eliminated
- ◆ Negligible pressure drop
- ◆ State of the art electronics controller panel for automatic operation of the dryer
- ◆ Audio-visual alarm for solenoid valve failure
- ◆ Visual display of drying and regeneration cycles
- ◆ Easy to install and maintain

- ◆ Dryer vessels designed as per ASME Code
- ◆ With suitable Pre and Post Filters of ultrafilter make, the residual particles will be less than 0.01 micron, with oil content of 0.01 ppm or less and moisture content of 0.0028 grams – the best achievable

Low-noise vessel evacuation via special silencers.

Relationship between flow capacity and various operating condition

Working bar	4	5	6	7	8	9	10
Pressure psi	56	70	85	100	115	125	142
Pressure Factor Fp	0.63	0.75	0.88	1.00	1.12	1.25	1.45

Inlet Temperature (oC)	25	30	35	40	45	50
Correction Factor	1.00	1.00	1.00	0.8	0.7	0.5
Atmospheric Dew Point	MSD -70	-70	-70	-65	-55	-50
	ALD 1.2	1.1	1.00			
		-40	-40	-40		

Ambient Temperature (°C)	<20	20	25	30	35	40	45
Ambient Temperature Factor	1	1	1	0.98	0.97	0.92	0.87

Type	Atmospheric Dew Point	Residual water content	Quality* Class
MSD	-70°C	0.0028g/m <sup>3</sup>	1 +
ALD	-40°C	0.11g/m <sup>3</sup>	1

\*In accordance with pneurop recommendation 0.01 mg/m<sup>3</sup> residual oil content at 1 bar 20°C at inlet Oil content of 3 mg/m<sup>3</sup>

Technical Specification							
Dryer Model	Capacity		Dimensions (mm)			End Connection	Weight kgs.
	m3/hr	cfm	Height	Weight	Depth		
0004	4	2	700	320	248	1/4" BSP(F)	60
0008	8	5	820	320	248	1/4" BSP(F)	63
0012	12	7	928	370	320	3/4" BSP(F)	65
0018	18	10	1243	380	320	3/4" BSP(F)	86
0024	24	15	1043	420	320	3/4" BSP(F)	88
0032	32	20	2243	380	320	3/4" BSP(F)	90
0048	48	30	1241	676	420	3/4" BSP(F)	1145
0072	72	45	1541	676	420	3/4" BSP(F)	1175
0096	96	60	1856	676	420	1" BSP(F)	182
0144	144	85	2096	676	420	1" BSP(F)	196
0192	192	115	1583	910	475	1-1/2" BSP(F)	345
0288	288	170	1843	910	475	1-1/2" BSP(F)	390
0384	384	230	2143	910	475	1-1/2" BSP(F)	445
0480	480	290	1917	1340	710	2" BSP(F)	635
0576	576	340	2117	1340	710	2" BSP(F)	490
0768	768	460	2217	1340	710	2" BSP(F)	765
0960	960	570	1414	1512	970	2-1/2" BSP(F)	950
1440	1440	900	2115	1700	1212	DN 80	1000
1920	1920	1200	2850	1800	1100	DN 80	1050

- ◆ Dryer complete with electronic control panel

- ◆ Operating pressure : Min 4 bar(g) , Max : 16 bar(g)

◆ Note: ALD Series represent Activated Alumina Dryers, MSD Series represent Molecular Sieves Dryers. If the compressed air is very dirty, then prefilters must be used. The pressure loss across the ultrafilter dryer is 0.15 bar (2 psi) across dryers column only.

## APPLICATIONS OF DRY AIR

- ◆ Compressed air lines subject to frost either outside or in a cold room
- ◆ Conveyance of hygroscopic products
- ◆ Instruments and control air
- ◆ Sensors in fluid technology e.g. film processing
- ◆ Precision pressure regulators
- ◆ Process control instruments
- ◆ Plant spraying / powder Coating
- ◆ Machine tools
- ◆ Air turbines
- ◆ Bearing air
- ◆ Air motors
- ◆ Packing machnies
- ◆ Textile machines Pneumatic cylinders
- ◆ Sand Blasting units
- ◆ Handling of food and beverages
- ◆ Breathing air
- ◆ Semi-conductor manufacturing
- ◆ Pharmaceutical manufacturing



## Externally Heated Dryers: Improving the best still further ...

The HRE range of externally heat-generated high efficiency dryers i.e. HRE-ALD, HRE-SGD and HRE-MSD are characterised by their low pressure and large volume flows. The result for you is economy and reduced operating costs. They have a purge air requirement of <1%. Heat loss is largely eliminated thanks to the insulation of heating elements, pipe work and even the vessels for higher capacities. They provide the easiest way to dry compressed air. Additional advantages include easy monitoring, minimum of moving parts and minimum maintenance.

The HRE dryers are equipped with automatic switchover mechanism with maintenance free four-way valves up to 3350 nm<sup>3</sup>/hr and with Butterfly valve for higher capacities. The operating status and any faults are shown in a flow chart on an LED display. A thermometer downstream of the heater constantly monitors the temperature of regeneration air. In addition all alarm functions are shown on a potential free collective fault indicator. A PLC based control panel is provided for automatic operation of the dryer



### Our Product Range

**ultrafilter (india) pvt. ltd.**

(An ISO 9001-2008 Certified Company) Pure & World Wide



Oil Removal Filters



Process Filters



Air Dryers



LDO Filtration Kits



Fridge Dryers



Air Intake Systems



Float Type Auto Drain

- High Efficiency Oil removal filters for Compressed Air & Gas
- Adsorption Dryers with dew point up to -70° C
- Refrigerated Dryers with Pressure dew point of +3° C
- Water Treatment systems using hollow fiber Membranes

- Filters with Manual / automatic backwash arrangement
- Moisture Separators and Condensate drains for compressed air lines
- Natural gas filters
- Air-Cooled / Water cooled Aftercoolers
- Process Gas / Liquid Filters

Accessories shown in the picture are not a part of standard equipment. All rights reserved. Technical data shown here are subject to change without prior notice.



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**ultrafilter (india) Sales Network**

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