

Adzorb - The Heatless air dryer



Moisture Indicator to ascertain Outlet air quality
Purge Economizer offers Potential savings
PLC for precise control and maintenance alert
Oil Check apparatus for air quality validation
Auto vent system ensures moisture-free air 24/7

New | Dimensions
Solutions



Need of Compressed air dryer:

The compressed air leaving a compressor contains considerable quantities of water vapour. If the untreated air is supplied into the distribution lines, the moisture would condense to liquid water as it gets cooled. Condensed water is a major cause of downtime in compressed air systems. Water causes rust, pitting, blockages and freeze ups, which results in component failure and product rejection. The only way to prevent condensation of water in air lines is to lower the dew point of the air in the system. It is less expensive to own and operate an air dryer than to live with the problems it can prevent.

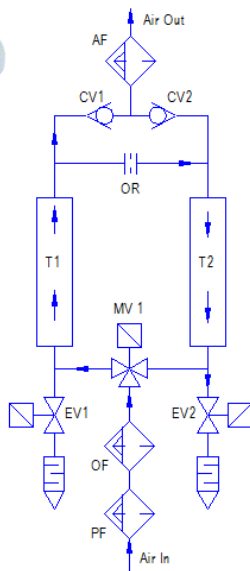
Adzorb - Operation:

Coalescing filters of 5 micron and 0.01 micron removes bulk moisture and liquid oil from the compressed air. This pre-treated air diffuses to the bottom of the adsorber (T1) and passes through the desiccant bed. This desiccant bed adsorbs moisture and dries the air. Dry air leaves the adsorber (T1) and passes through 1 micron dust filter. Thus Dry, filtered compressed air is available to the application.

The desiccant can adsorb only certain quantity of moisture and will reach equilibrium after certain time. It can no longer dries the air to the required dew point and should be regenerated to keep the process continuous. To regenerate the first adsorber (T1), some partial quantity of dry air coming out of second adsorber (T2) is diverted to first adsorber (T1). This Dry air expands to atmospheric pressure and become subsaturated. This subsaturated dry air purges out all moisture from the first adsorber (T1) and makes it ready for next adsorption.

Air flow is diverted to adsorber column alternatively by valves and controller.

Adzorb – Features:



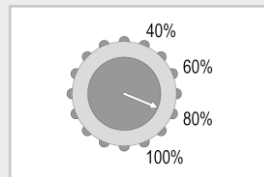
Pleated Borosilicate depth filter media in all micro filters removes Bulk moisture and Oil completely and enhance life of desiccant.



Inbuilt Moisture indicator helps to ascertain outlet air quality instantly in terms of moisture content.



Oil check apparatus (Optional) helps to measure the oil content in the outlet air down to 0.1 to 0.2mg/m3.



Purge Economizer offers Potential savings during varying load condition.



Wedge technology diffuser ensures uniform distribution of compressed air to desiccant bed at lowest pressure drop. Made of Heavy wire Stainless steel for long life.



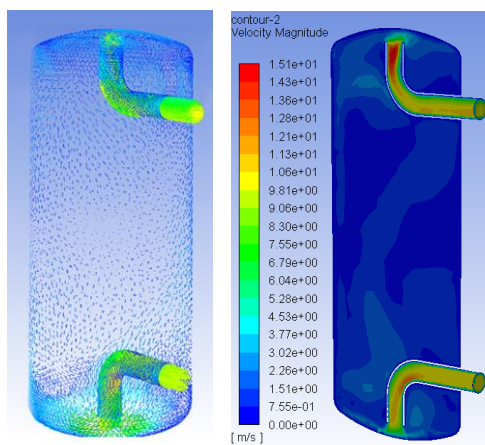
Ceramic Bed protects the desiccant against direct impingement of air stream coming out of diffuser; reduces the attrition loss.



Inbuilt no air loss drain valve at Pre & Oil filter helps to drain the contamination periodically and saves energy.

Every parameter affecting the reliability is carefully analyzed and culminated using simulation techniques.

Effective removal of moisture at every milli-meter travel of compressed air during drying process is ensured.



Velocity vector and Velocity contour of flow

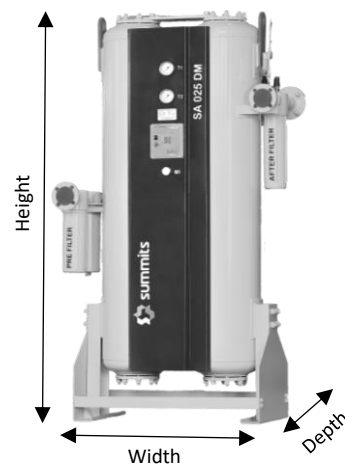
Adzorb – Flowrates and Dimension data:

SN	Product Model	FAD, cfm	In/Out	Width mm	Depth mm	Height mm	Weight kg
1	Adzorb 004 CM	40	½"	600	400	1740	210
2	Adzorb 006 CM	60	¾"	600	400	1800	240
3	Adzorb 008 CM	80	1"	700	450	1600	290
4	Adzorb 010 CM	100	1"	700	450	1780	320
5	Adzorb 012 CM	120	1"	760	450	1550	370
6	Adzorb 015 CM	150	1-1/2"	760	450	1750	415
7	Adzorb 020 CM	200	1-1/2"	880	450	1650	450
8	Adzorb 025 CM	250	1-1/2"	880	450	1900	520
9	Adzorb 030 CM	300	1-1/2"	1300	600	1720	640
10	Adzorb 035 CM	350	2"	1300	600	1850	700
11	Adzorb 040 CM	400	2"	1400	650	1700	740
12	Adzorb 050 CM	500	2"	1500	900	1850	1100
13	Adzorb 060 CM	600	80 NB	1500	900	2000	1250
14	Adzorb 075 CM	750	80 NB	1650	1000	1850	1410
15	Adzorb 100 CM	1000	80 NB	2000	1200	2000	2050
16	Adzorb 125 CM	1250	80 NB	2300	1200	2200	2250

FAD is based on 20°C & 1 bar(a).

For ordering add suffix of Pressure and Dew point; Refer Nomenclature.

Summits has capability to deliver ultra high pressure dryer up to 400 bar g working pressure. Please contact factory for any high pressure requirement.



Nomenclature:

Adzorb 010 DL →
Adzorb: Series name
010 x 10 = 100 cfm
D: 16 bar g
L: -40°C pdp.

Pressure variants:

C: 12 bar g
D: 16 bar g
E: 40 bar g
F: 70 bar g

Dew point variants:

M: -20°C at 7 bar g
L: -40°C at 7 bar g
Other upon request

Common technical data:

Pressure : 7 to 12 bar g
Inlet Temp. : 45°C
Ambient temp. : 40°C
Air humidity : 100% at 45°C
Installation : Indoor
Power supply : 230VAC 50Hz

Adzorb+

The All-round Performer



Differential pressure gauge in Microfilter guides us to replace elements at right time.



Integrated PLC with numerous facilities, Controls, Maintenance alert and compatible to industries required communication protocol.



Inbuilt online dew point meter monitors outlet air quality 24/7. Dew point based purge ensures right quantity of purge according to end point consumption.



Inbuilt Moisture indicator helps to ascertain outlet air quality instantly in terms of moisture content.



Highly reliable Multiport valves offer very less pressure drop and helps to save energy.



Auto vent system prevents untreated air enters to application.



Oil check apparatus helps to measure the oil content in the outlet air down to 0.1 to 0.2mg/m3

Laser dryer - The Perfect Solution



Oil or water droplets in the air can create a film on the laser optics, causing beam divergence or distortion and reduces effectiveness of cutting. Clean, dry compressed air ensures efficient cutting and helps maintain the desired cut quality and accuracy.

Laser cutting systems employ a series of expensive and sensitive optical components, including lenses, mirrors, and beam delivery systems. These components are susceptible to damage or degradation if exposed to contaminated compressed air. Particulates in the air can scratch or erode optical surfaces, while oil or moisture can cause deterioration or corrosion.



Summits Laser dryer comprises 5 step air purification process with Pleated Borosilicate depth filter media in all micro filters removes Bulk moisture and Oil completely suitable for laser cutting.



Oil check apparatus (Optional) helps to measure the oil content in the outlet air down to 0.1 to 0.2mg/m³



Inbuilt Moisture indicator helps to ascertain outlet air quality instantly in terms of moisture content.



Activated carbon binds oil vapor to its surface and reduce the oil vapor content in compressed air to 0.003 mg/m³. In addition, it removes a variety of other hydrocarbons, odors and flavors.

Laser dryer – Flow rates and Dimension data

SN	Product Model	FAD, cfm	In/Out	Width mm	Depth mm	Height mm	Weight kg
1	LC 004 DL	40	1/2"	700	400	1680	260
2	LC 006 DL	60	3/4"	700	500	1690	290
3	LC 008 DL	80	1"	700	500	2190	330
4	LC 010 DL	100	1"	1000	500	1770	400
5	LC 012 DL	120	1"	1000	500	1970	450
6	LC 015 DL	150	1"	1200	600	1770	520
7	LC 020 DL	200	1-1/2"	1200	600	2140	580
8	LC 025 DL	250	1-1/2"	1300	700	1950	700

Common technical data:

Pressure : 12 to 16 bar g
Inlet Temp. : 45°C
Ambient temp. : 40°C
Air humidity : 100% at 45°C
Installation : Indoor
Power supply : 230VAC 50Hz

Nomenclature:

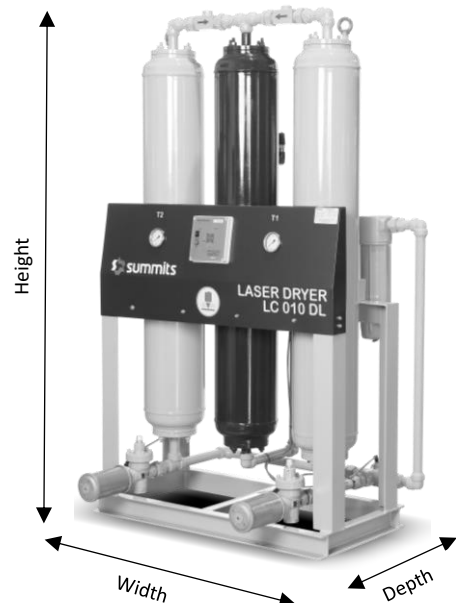
LC 010 DL →
LC: Series name
010 x 10 = 100 cfm
D: 16 bar g
L: -40°C dpd.

Pressure variants:

D: 16 bar g
E: 40 bar g
F: 70 bar g

Dew point variants:

L: -40°C at 12 bar g
Other upon request



Manufactured and marketed by

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