

27⁺
YEARS
OF
EXCELLENCE

 **summits**
Enabling Innovation. Enhancing Lives.



Adzorb

The Heatless air dryer

- Moisture Indicator to ascertain outlet air quality.
- Purge Economizer offers potential savings.
- PLC for precise control and maintenance alerts.
- Oil Check apparatus for air quality validation.
- AVS safeguards your precise equipments at all time.

NEW | DIMENSIONS
SOLUTIONS



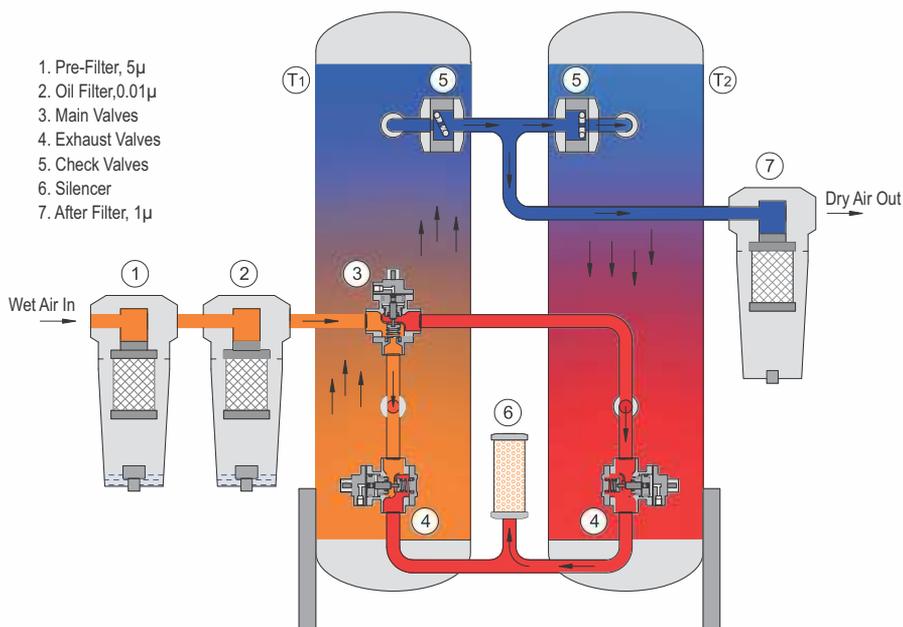
Need of Compressed air dryer:

Compressed air leaving the compressor contains considerable quantities of water vapour, oil & particles. If the untreated air is supplied to distribution lines, then the moisture would condense to liquid water as it gets cooled. The condensed water is a major cause of downtime in compressed air systems as it causes rust, pitting, blockages and freeze ups, which result 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.

Adzorb - Operation:

Coalescing filters of 5 micron and 0.01 micron remove 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 which 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 for precise operation.

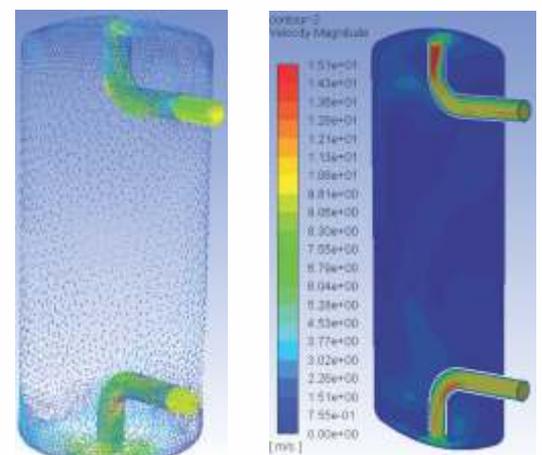
The desiccant can adsorb only certain quantity of moisture and will reach equilibrium after certain time. It can no longer dries the air to the required dew point and hence it should be regenerated to keep the process continuous. To regenerate the first adsorber (T1), partial quantity of dry air coming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



Simulation Driven

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

This assures effective removal of moisture at every millimeter travel of compressed air during drying process.



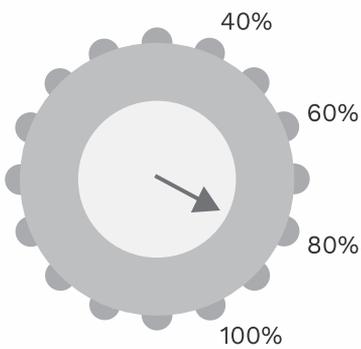
Velocity vector and Velocity contour of flow

Adzorb – Engineered the best



Pleated filter media

Pleated Borosilicate depth filter. media in all micron filters removes bulk moisture and oil completely and enhance the life of desiccant.



Purge Economizer

Purge Economizer offers potential savings during varying load conditions.



No air loss drain valve

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



Active ceramic bed

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



Moisture indicator

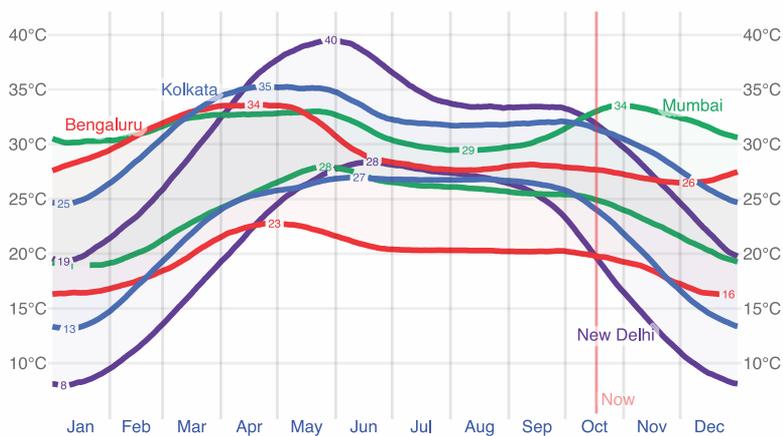
Inbuilt Moisture indicator helps to ascertain outlet air quality instantly in terms of moisture content.



Adzorbplus The All-round Performer



Average High and Low Temperature in India



The daily average high and low air temperature at **2 meters** above the ground

Thanks to the wonders of nature, including the Earth's tilt of 23.5 degrees, which brings us the gift of changing seasons. The graph beside illustrates the fluctuation in ambient temperature across the seasons. Ambient temperature plays a decisive role in moisture content present in the compressed air.

The temperature of the ambient air directly influences the temperature of the compressed air. As the compressed air gets cooler, its moisture content decreases. A reduced moisture content offers the possibility to prolong adsorption time, consequently conserving valuable purge air.

Adzorbplus air dryer supported with Dewpoint meter & DDS (Dewpoint dependent switching system) has potential to save up to 50% of purge-air even if dryer is operated at 100% of its rated flow.

Add-ons with Ordering code



Advanced PLC with numerous facilities, Controls, Maintenance alerts and compatible to industries required communication protocols, RS485 Modbus, BMS, IOT, Ethernet and Industry 4.0



Ordering code: 002KS0150 R00

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



Ordering code: 002KS0149 R00

Differential pressure gauge in Micron filter guides us to replace elements at the right time.



Ordering code: 006MI0031 R00
Online **Dewpoint meter** monitors outlet air quality 24/7. Dew point based purge ensures right quantity of purge according to the end point consumption.



Ordering code: 002KS0148 R00
Autovent system (AVS) prevents untreated air entries to the application.



Adzorbplus – Flowrates and Dimension data:

S.no	Product Model	FAD, cfm	In/Out	Width mm	Depth mm	Height mm	Weight kg
1	Adzorb 004 CM	40	G1/2	600	400	1740	210
2	Adzorb 006 CM	60	G3/4	600	400	1800	240
3	Adzorb 008 CM	80	G1	700	450	1600	290
4	Adzorb 010 CM	100	G1	700	450	1780	320
5	Adzorb 012 CM	120	G1	760	450	1550	370
6	Adzorb 015 CM	150	G1-1/2	760	450	1750	415
7	Adzorb 020 CM	200	G1-1/2	880	450	1650	450
8	Adzorb 025 CM	250	G1-1/2	880	450	1900	520
9	Adzorb 030 CM	300	G1-1/2	1300	600	1720	640
10	Adzorb 035 CM	350	G2	1300	600	1850	700
11	Adzorb 040 CM	400	G2	1400	650	1700	740
12	Adzorb 050 CM	500	G2	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 (Free Air Delivery) is based ISO 7183-2007.

In/Out Flange (NB) conforms to ASME B16.5 CL 150 LBS SORF

For ordering add suffix of Pressure and Dewpoint; Refer Nomenclature.

Summits can deliver ultra high pressure dryer up to 400 bar g working pressure.

Please contact the factory for any high pressure requirements.

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

Nomenclature:

Adzorb 010 CL →
 Adzorb: Series name
 010 x 10 = 100 cfm
 C: 12 bar g
 L: -40°C pdp.

Pressure Correction factor

Operating Pressure, bar g	5	6	7	10	12
Correction factor, Z1	0.747	0.837	1	1.17	1.27

Temperature Correction factor (Z1)

Inlet Air Temperature, °C	45	50	55	60
Correction Factor, Z2	1	0.774	0.604	0.475

$$\text{Dryer nominal capacity} = \frac{\text{Compressor actual FAD}}{Z1 \times Z2}$$

Pressure variants

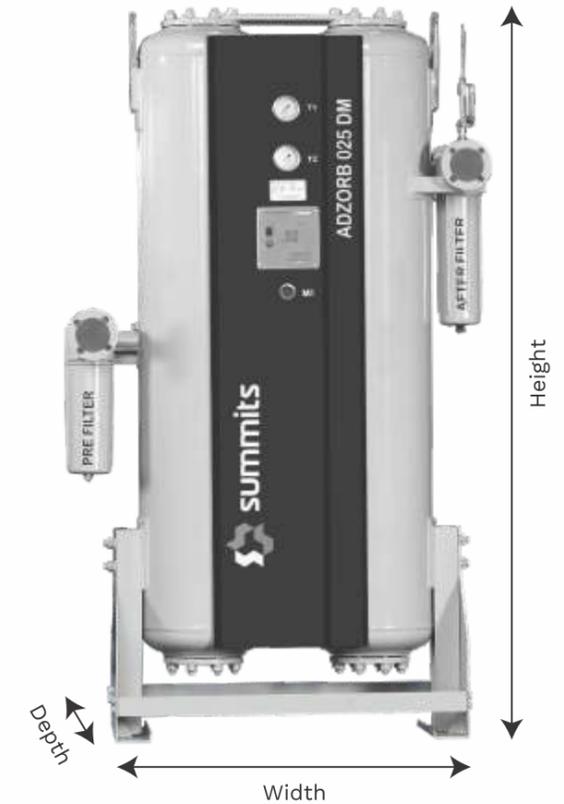
C: 7.0 to 12.0 bar g
 D: 12.1 to 16.0 bar g
 E: 16.1 to 40 bar g
 F: 40.1 to 70 bar g

Dew point variants

M: -20°C pdp (ISO 8573-1:2010, Table 2, Class 3)
 L: -40°C pdp (ISO 8573-1:2010, Table 2, Class 2)
 Others upon request

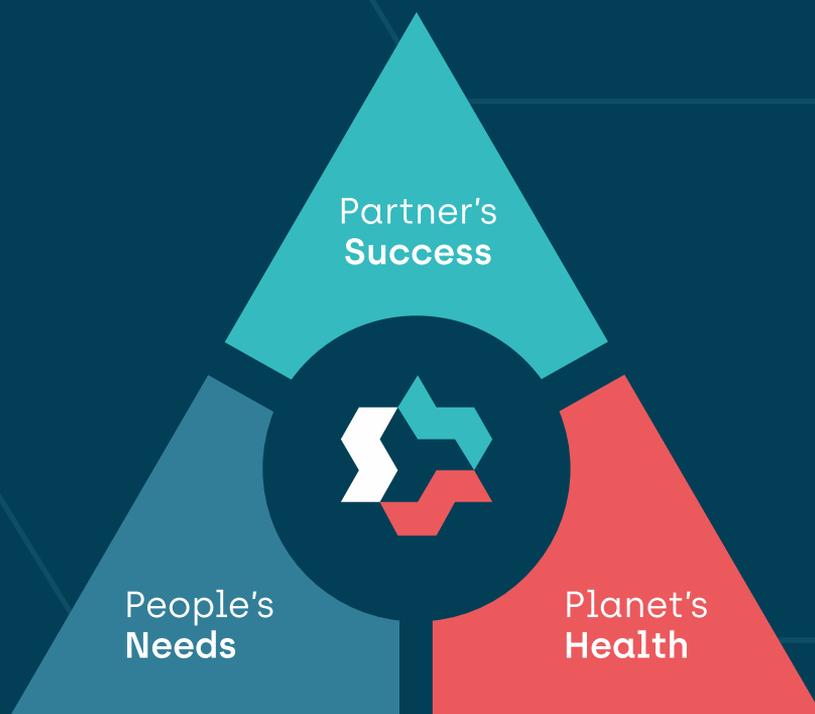
Selection example

Compressor FAD, cfm	525
Inlet Pressure, bar g	5
Inlet Air temperature, °C	50
Pressure Correction Factor Z1	0.747
Temperature Correction Factor Z2	0.774
Required dryer capacity, cfm	525 / (0.747 x 0.774) = 908
Model to be Chosen	Adzorb 100 CM



Variants & Features		
Scope	Adzorb	Adzorbplus
Pre-filter	✓	✓
Oil filter	✓	✓
Adsorber (2 nos.)	✓	✓
Dust filter	✓	✓
Moisture indicator	✓	✓
Purge economiser	✓	✓
PLC	--	✓
DDS	--	✓
Add-on components		
Dew point meter	✓	✓
Oil check apparatus	✓	✓
Autovent system (AVS)	--	✓
Differential pressure gauge	✓	✓

Harvesting the elements of air through innovation for



Manufactured and marketed by

 **Summits Hygronics Private Limited**
SF.192 Earithottam, Kannampalayam,
Coimbatore - 641402. Tamilnadu, India.
P: +91 95009 96000

 enq@summitsgroup.in  www.airdryer.in

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